



670T INSURANCE APPROVED CAN BUS ALARM  
(ORIGINAL REMOTE CONTROL UPGRADE)

## USER GUIDE

**LASERLINE**<sup>®</sup>  
CAR ALARM SYSTEMS

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THIS PRODUCT MUST BE INSTALLED  
BY SKILLED AND QUALIFIED PERSONNEL  
WARNING

ALARMS MUST NOT BE STEAM CLEANED OR PRESSURE WASHED.  
BEFORE CARRYING OUT ANY ELECTRICAL WORK ON THE VEHICLE ISOLATE THE SYSTEM  
BY REMOVING SYSTEM FUSE/VEHICLE BATTERY OR DAMAGE TO THE ALARM MAY  
RESULT!

## 2 - INTRODUCTION

This system is manufactured from the highest quality components to ensure a long trouble free operating life and comply with the British insurance industry's criteria for vehicle security for Category 2 à 1 (L2 à 1) (AFTERMARKET SYSTEMS) [Utilising the original equipment remote tested to Issue 2 Criteria] product, as evaluated by Thatcham (MIRRC).

Note: Category 2 à 1 (L2 à 1) product – 670T alarm system is only to be fitted in conjunction with a Category 2 (L2) immobiliser to obtain Category 1 status for the vehicle security. The 670T alarm is for vehicles equipped with a 12v negative earth electrical system.

This alarm system is exclusively a deterrent against possible theft. In no way can it be considered as an actual insurance against theft. The manufacturer declines any liability for faults or anomalies in the alarm system, in its accessories or in the vehicles's electric equipment due to incorrect installation or unobservant of specified features/standards.

These instructions are intended to familiarise you with their very simple operation.

What is CAN BUS?

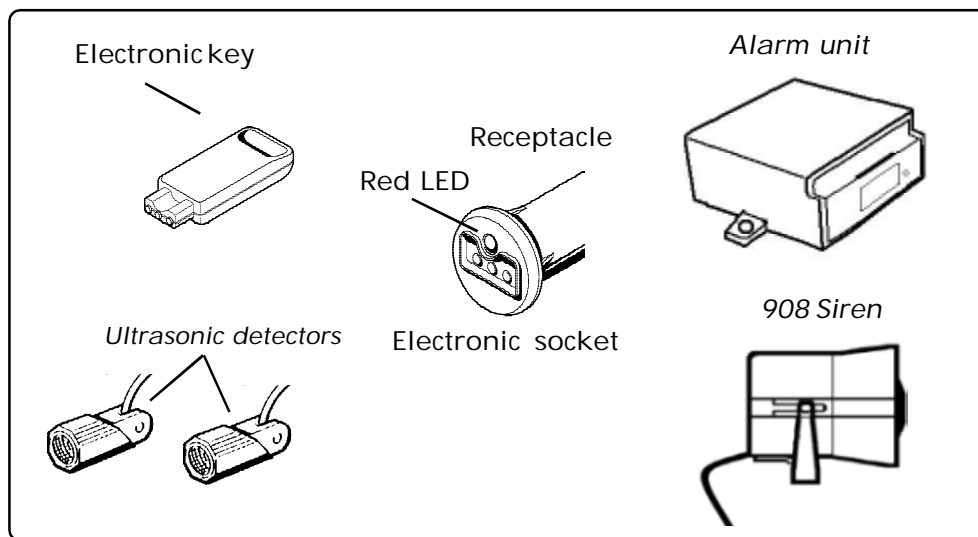
CAN BUS (Controller Area Network) is a serial communications network that allows most of the vehicle modules (ECU's) to communicate with each other using data. On old vehicle's the four control switches for the electric windows in the drivers door would have at least 2 wires from each switch going to each door window on the vehicle. On new vehicles with CAN bus only two wires are required to come from the drivers door to control all the electric windows on the vehicle. This is achieved by having small modules inside each door that interprets the CAN data on these two wires. These modules not only control the electric windows they also control other equipment like, central locking, interior/exterior lighting, electric mirrors, electric seats, etc. The Laserline 6 series alarms are capable of reading some of the CAN bus data to interpret when doors are open/closed,

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and when doors are locked or unlocked. Using this data means there are less connections from the alarm to the vehicle.

### 3 - 670T SYSTEM COMPONENTS

Your alarm system consists of the following items:



KEY \* Optional. \*\* Vehicle dependent.

## 4 - ALARM SYSTEM OPERATION

### 4.1 - ALARM SYSTEM ARMING/DISARMING

To arm the alarm, press the lock or deadlock\*\* button on the vehicles original remote control; the alarm may give two acoustic tones\* and the direction indicator lights may flash a number of times\*\* to indicate that the system is now armed.

Once armed, the alarm system will operate the comfort closure\*\*/window closure\* if these functions have been incorporated.

The red LED in the receptacle will remain on for 40 seconds (pre-alarm time), then begin to flash to indicate the alarm system is fully armed.

To disarm the alarm, press the unlock button on the vehicle original remote control; the alarm may give one acoustic tone\* and the direction indicator lights may flash a number of times\*\* to indicate that the alarm system is now disarmed.

- Ø In some vehicles, when using the mechanical key for the door locking, the alarm system will arm. It is possible in some cases, when unlocking the vehicle by the mechanical key, during the pre-alarm time of arming, the alarm system will disarm. For security reasons when the alarm is fully armed the system can only be disarmed by remote control or by the electronic key.
- Ø Comfort closure is a feature that may already be incorporated into the original remote control of the vehicle. Check vehicle user guide for operation.
- Ø If the alarm has been triggered by manually opening a door it may be necessary to close the door, then lock and unlock with the original remote control to disarm the alarm.

### 4.2 - ALARM CONDITION

When fully armed if a sensor is activated, the system will generate an alarm condition: direction indicators may flash and the siren will sound for 27 seconds (alarm cycle). At the end of the alarm cycle, if the same sensor is still activated, the alarm will generate an alarm cycle again.

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## 4.3 - ALARM CYCLE LIMITATION

The system will automatically exclude the sensor, which has generated 8 alarm cycles in one armed period. All the other sensors will continue to protect the vehicle. The maximum number of alarm cycles for every sensor is 8, except for power supply interruption to siren (10 alarm cycles).

Note: If a sensor continues to remain activated whilst in the pre-alarm time, the system will generate an alarm condition. When the alarm system is next disarmed a shorter than normal flash\*\* of the direction indicator lights and an acoustic tone will be produced to indicate that a sensor was activated whilst arming. To identify the sensor that was activated, consult the "ALARM TRIGGER HISTORY"

## 4.4 - ALARM TRIGGER HISTORY

It is possible to know the last alarm trigger that has occurred by turning on the ignition after disarming the alarm system.

Each alarm cause is associated to an identification flash code:

FLASH CODES	ALARM CAUSE
2 FLASHES/PAUSE:	the IGNITION KEY sensor generated an alarm condition
3 FLASHES/PAUSE:	the DOOR/HATCH sensor generated an alarm condition
4 FLASHES/PAUSE:	the BONNET/BOOT sensor generated an alarm condition
6 FLASHES/PAUSE:	the ULTRASONIC sensor generated an alarm condition

The alarm cause is displayed by the LED flashing 5 times the alarm identification flash code, e.g.:



## 5 - PROBLEM SOLVING

If you find you have to get closer to the vehicle to unlock/disarm the alarm, this is normally a indication that the original remote control batteries may need replacing. Refer to vehicle's user guide for replacing the remote batteries.

If your alarm sounds for no apparent reason, please refer to the "ALARM TRIGGER HISTORY" for possible condition. Possible causes of the alarm condition could be:

- Vehicle has been tampered with.
- Windows/sunroof are not fully closed.
- Doors/boot/bonnet are not fully closed.
- Check that the air vents have not been left open. Air movement within the vehicle may trigger your alarm.
- Check the doors/boot/bonnet contact switches operate correctly.
- Articles inside the vehicle are moving e.g. jacket, hanging toys or accessories.

## 6 - PASSIVE ARMING\*

This function, if enabled, allows the alarm to automatically arm after 60 seconds after switching the ignition OFF. However, when armed through this function it will not activate the comfort output/ultrasonic sensors. The next alarm disarming can be activated by the EMERGENCY ELECTRONIC KEY or the ORIGINAL REMOTE - in this case you may need to prompt the system for locking and then prompt it again for unlocking, in order for the alarm to be synchronised again with the lock status.

## 7 - ULTRASONIC EXCLUSION

Ultrasonic exclusion (e.g. if you want to use the alarm whilst keeping vehicle windows open);

To disable the ultrasonic sensors for one arming cycle:

- Ⓞ** With the alarm system disarmed and the ignition in the off position;
- Insert the electronic key into the receptacle twice within 2 seconds. The status LED will illuminate briefly for each insertion of the electronic key and may be followed by one short acoustic tone\*, will indicate the exclusion of ultrasonic sensors.
- Ⓩ** Exit the vehicle and arm the alarm with the vehicle's original radio control or insert the electronic key and exit vehicle.

Disarming the alarm and rearming will switch the ultrasonic sensors back ON.  
Disabling the ultrasonic sensors also causes the optional window closing\*/comfort closing\*\* to be disabled.

## 8 - EMERGENCY DISARMING/GARAGE MODE BY THE ELECTRONIC KEY

To disarm with the electronic key, if the alarm was originally armed with the vehicles remote control:

- Ⓞ** enter the vehicle using the vehicle key in the door lock (alarm will sound);
- insert the electronic key into the receptacle socket (alarm will stop sounding and LED in the receptacle will switch OFF and alarm will enter into Garage Mode).

When disarmed in this way the alarm will enter Garage Mode and will not arm when the remote control is next used to lock the vehicle. With the ignition On or Off the LED will flash briefly every 16 seconds to indicate that the alarm is in Garage Mode.



To exit Garage Mode and be able to arm/disarm the alarm with the vehicles remote control:

- Ⓒ** insert an electronic key into the receptacle socket, LED in receptacle will illuminate (pre-set time);
- whilst the LED is illuminated (pre-set time) insert an electronic key for a second time into the receptacle socket (alarm will disarm).

Now when the vehicle is locked with the vehicles remote control the alarm will arm.

## 9 - ARM/DISARM BY THE ELECTRONIC KEY

To arm/disarm with the electronic key, if the originally vehicles remote control is not available/not working.

To arm the alarm:

- Ⓒ** arm the alarm by inserting an electronic key once into the receptacle socket, LED in receptacle will illuminate (pre-set time);
- Exit the vehicle and manually lock the vehicle with key whilst the LED is illuminated (pre-set time).

When the alarm is armed using the electronic key the ultrasonic sensors and any optional window closing\*/comfort closing\*\* are disabled.

To disarm the alarm:

- Ⓒ** manually unlock the vehicle and enter the vehicle;
- if the electronic key is inserted into the receptacle within 10 seconds of entering vehicle the alarm will disarm without causing an alarm condition.

## 10 - PROGRAMMING OF NEW ELECTRONIC KEY

The procedure allows you to program new electronic keys.  
To carry out the procedure, the bonnet switch must be fitted. Note: Not all installations require the bonnet switch to be fitted, if this is the case please contact your original installer. Then do the following:

- Ⓔ With the alarm disarmed;
  - Open bonnet;
  - Ⓕ Turn the ignition key ON and OFF four times within four seconds, making sure that on the fourth cycle the ignition is left in the ON position;
  - The alarm will indicate the starting of the electronic procedure by, 3 acoustic signals and 3 flashes of the status led.;
  - Insert each electronic key to be learnt to the alarm into the receptacle socket (LED will flash once for each key learnt);
  - ' Turn OFF the ignition; procedure completion will be indicated by 3 acoustic signals and 3 flashes of the receptacle LED.
  - ' Close bonnet.
- ∅ You can program a maximum of 4 electronic keys.  
∅ Electronic keys not programmed during the last self-learning session will be automatically cancelled from the alarm memory.

## 11 - 670T TEST APPROVAL NUMBER

670T - MIRRC Reference Number: Category 2 - 1 TU2-1426/1207

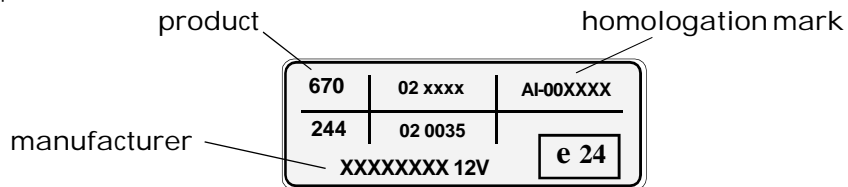
670T - MIRRC Reference Number: Category L2 - 1 TUL1-151/1207

KEY \* Optional. \*\* Vehicle dependent.

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## 12 - HOMOLOGATIONS

This product complies with the requirements of applicable European directives. You will find a label on the alarm unit stating the homologation number, obtained according to the European directive 95/56/CE.



## 13 - TECHNICAL DATA

<b>670T</b>	
POWER SUPPLY .....	9-15V negative ground
CURRENT ABSORBED WITH ALARM ARMED (with ultrasonic) .....	< 10 mA
PRE-ALARM TIME .....	40 sec.
DELAY ENTRY TIME (armed by passive arming or electronic key) .....	10 sec.
ALARM CYCLE PERIOD .....	27 sec.
OPERATING TEMPERATURE .....	-30°C to 70°C
DIRECTION INDICATOR LIGHT RELAY CONTACT CAPACITY .....	8 A
<b>908 SIREN</b>	
POWER SUPPLY .....	9-15V negative ground
CURRENT ABSORBED WHEN CHARGING .....	<25 mA
CURRENT ABSORBED WHEN FULLY CHARGED .....	<2.5 mA

## 14 - LIFETIME WARRANTY

Product warranty covers units to be free from defects in manufacture for the lifetime ownership of the original vehicle, in accordance with the terms and conditions of this warranty document.

Any product, which is deemed to be defective, will be replaced or repaired. Accessories including electronic keys and additional modules are guaranteed for a period of 12 months from date of installation.

### TERMS AND CONDITIONS

1. Product must be installed by an authorised qualified installer.
2. If product is transferred by an authorised installer onto another vehicle then in this case the warranty reverts back to 2 years from the date of the original installation.
3. Warranty is not transferable by the original customer to other owners of the product or accessory.
4. The customer must complete and return the warranty registration document within 21 days from date of purchase in order for the warranty to be valid.
5. The warranty covers product only and not the quality of the installation. The warranty for installation is provided by the installer. We cannot be held responsible for costs arising due to incorrect installation.
6. All warranty claims must be directed through the original installer, accompanied by the original invoice, detailing date of installation and annual service record. Failure to do this will render the warranty invalid.
7. Continuance of product warranty is subject to an annual product service inspection for which a small charge may be levied by any authorised installer. Evidence of service inspection record must be provided in support of warranty claims.
8. Warranty does not cover costs incurred for breakdown assistance or vehicle recovery, due to product or accessory failure. Warranty does not extend to reimbursement for damage due to defects in products or accessories.

### EXCLUSIONS FROM WARRANTY

Warranty will not be valid due to the following:

1. Poor response to transmitters due to abnormally high electromagnetic interference.
2. Low battery voltage in transmitters.
3. Abuse or mistreatment of any product or accessory.
4. Loss or damage due to accident, fire, lightening, explosion, flood or water, war or civil disturbances.
5. Damage caused by external electrical source or from abnormal variation or failure of power supply.
6. Failure caused by installation of accessories not approved by the product manufacturer.
7. Failure of product occurring outside Great Britain.
8. Replacement of defective parts within the guarantee period does not include consumable parts or include labour.
9. If product is repaired by a non authorised installer the product will cease to be covered by the warranty.
10. Original manufacturer negligence.

### CONSUMER SUMMARY

All warranties are limited to the duration of this warranty.  
This is the complete warranty and no other express or implied warranty is valid. Nothing in this warranty shall affect your statutory rights.

### NOTE

Manufacturer declines any responsibility for damage of the alarm/immobiliser and the vehicle electrical system due to WRONG INSTALLATION OR TAMPERING.  
LASERLINE SpA RESERVES THE RIGHT TO EFFECT CHANGES OF THE PRODUCT WITHOUT FURTHER NOTICE.


## 15 - SERVICE INSPECTION

1 YRS	2 YRS	3 YRS	4 YRS
Installer's Stamp	Installer's Stamp	Installer's Stamp	Installer's Stamp
Cert. No. Reg. No. Date. Signature	Cert. No. Reg. No. Date. Signature	Cert. No. Reg. No. Date. Signature	Cert. No. Reg. No. Date. Signature
5 YRS	6 YRS	7 YRS	PLEASE NOTE
Installer's Stamp	Installer's Stamp	Installer's Stamp	The above Service Inspection must be carried out in order to ensure the validity of the Customer Lifetime Warranty
Cert. No. Reg. No. Date. Signature	Cert. No. Reg. No. Date. Signature	Cert. No. Reg. No. Date. Signature	

**16 - CUSTOMER LIFETIME WARRANTY REGISTRATION**

Alarm/Immobiliser Model No. ....Make.....

Accessories Fitted .....Model.....

 Date of Installation.....Reg.No. ....

Customer Name.....Year of Manufacture.....

Address.....

Postcode .....Tel No. ....

Installer Name .....Account No. ....

Address.....

Postcode .....Tel No. ....

I have read and understood the terms and conditions of the Customer Lifetime Warranty.

Customer Signature.....

**IMPORTANT NOTE  
FAILURE TO COMPLETE AND RETURN THIS CARD WILL RESULT IN YOUR WARRANTY  
BECOMING VOID.**

Return to:  
Laserline S.p.A. Limited  
73, Manchester Road  
Woolston  
Warrington  
Cheshire  
WA1 4AE





# NOTES

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ENGLISH

## NOTES

# NOTES



Dealer Stamp



*Our commissioned Sales and Support Agents in the UK are*  
Laserline S.p.A Limited  
73, Manchester - Road Woolston - Warrington - Cheshire WA1 4AE

cod. ISUT670T-new  
FILENAME: ISUT670T.P65