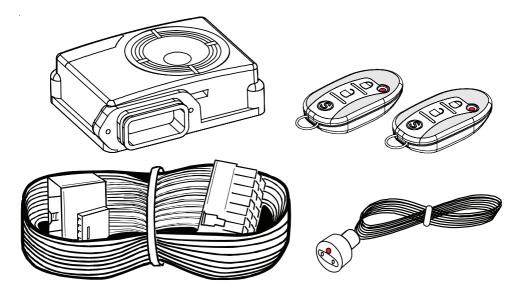


GT 970 INSTALLATION AND USER MANUAL



http://jablotron.nt-rt.ru/

По вопросам продаж и поддержки обращайтесь:

Архангельск (8182)63-90-72 Астана +7(712)727-132 Белгород (4722)40-23-64 Брянско (4832)59-03-52 Владивостк (423)249-28-31 Волгоград (844)278-03-48 Вологгра (8172)26-41-59 Воронеж (473)204-51-73 Екатеринбург (343)384-55-89 Иваново (4932)77-34-06 Ижевск (3412)26-03-58 Казань (843)206-01-48 Калининград (4012)72-03-81 Калуга (4842)92-23-67 Кемерово (3842)65-04-62 Киров (8332)68-02-04 Красноврск (391)204-63-61 Курск (4712)77-13-04 Липецк (4742)52-20-81 Магнитогорк (3519)55-03-13 Москва (495)268-04-70 Мурманск (8152)59-64-93 Набережные Челны (8552)20-53-41 Нижний Новгорад (831)429-08-12 Новокузнецк (3843)20-46-81 Новосибирск (383)22-786-73 Орел (4862)44-53-42 Оренбург (3522)37-68-04 Пенза (8412)22-31-16 Пермь (342)205-81-47 Ростов-на-Дону (863)308-18-15 Рязань (4912)46-61-64 Самара (846)206-03-16 Санкт-Петербург (812)309-46-40 Саратов (845)249-38-78 Смоленск (4812)29-41-54 Сочи (862)225-72-31 Ставропом. (8652)20-65-13 Тверь (4822)63-31-35 Томск (3822)86-41-53 Туля (4872)74-02-29 Тюмень (3452)66-21-18 Ульяновск (8422)24-23-59 Уфа (347)229-48-12 Челябинск (351)202-03-61 Череповец (8202)49-02-64 Чроспавль (4852)66-52-93

сайт: www.jablotron.nt-rt.ru || эл. почта: jnb@nt-rt.ru

SUMMARY

1.0 - GENERAL DESCRIPTION	Page 2
2.0 - INSTALLATION AND CONNECTIONS	Page 2
3.0 - CONNECTION DIAGRAM	Page 3
4.0 - ALARM POSITIONING	Page 4
5.0 - SET FUNCTIONS	Page 4
6.0 - USER MANUAL	Page 7
7.0 - MAINTENANCE AND WARNINGS	Page 10
8.0 - COMPLIANCE DECLARATION	Page 11
9.0 - TECHNICAL DATA	Page 11
10.0 - WARRANTY CONDITIONS	Page 12

1.0 - GENERAL DESCRIPTION

GT970 is a remote controlled alarm system for motor vehicles and scooter equipped with electronic sensor against shocks/movement, back up battery, perimetric protection for seat/bonnet or sidestand and engine immobilisation. The small dimensions facilitate the installation.

PROGRAMMABLE FUNCTIONSOF THE SYSTEM (SET FUNCTIONS):

- SHOCKS/MOVEMENT SENSOR ADJUSTMENT
- REMOTE CONTROL HANDSETS SELF-CODING
- RAPID TEST
- ACOUSTIC SIGNAL WHEN ARMING/DISARMING
- POSITIVE OUTPUT WHEN THE ALARM IS ARMED
- EMERGENCY INDICATORS FLASH
- AUTOMATIC ANTI-HIJACK (available only with GT884).

OTHER FUNCTIONS:

- SHOCKS/MOVEMENT SENSOR.
- "SERVICE" function.
- PANIC function.
- CHECK CONTROL of occurred alarms.
- Anomalies signalling
- ENGINE IMMOBILISATION.
- Emergency disarming by handset with electronic key incorporated.
- AUTOMATIC-LINK arming with additional special remote control handset.

2.0 - INSTALLATION AND CONNECTIONS

WARNING:

- Complete a pre-installation check and disconnect the negative terminal of the vehicle's battery.

- Mount the alarm away from direct sources of water spray and high tension wiring.

- Place the alarm as indicated in the "ALARM POSITIONING" paragraph.
- Solder all connections.
- Fix the RECEPTACLE/LED in a position easily visible.

- After having carried out the connections turn the vehicle ignition key on and off to make the system operating.

- Connect the **BROWN** wire (power supply negative) to the negative terminal of the vehicle's battery - Connect the **RED** wire (12V positive power supply) to the positive terminal of the vehicle's battery using the 3A fuse.

- Connect the **RED/WHITE** wire (indicators 12V positive) to the positive terminal of the vehicle's battery using the 15A fuse.

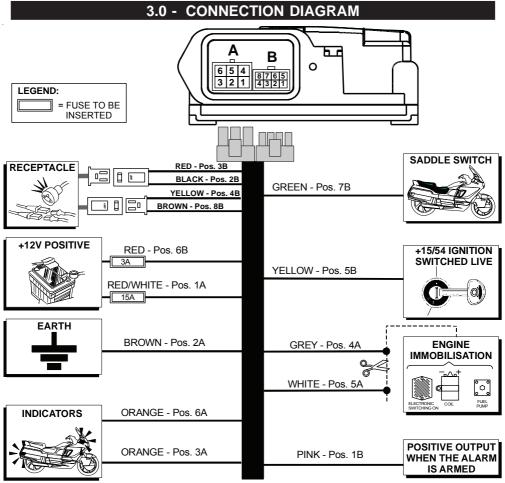
- Connect the wire **GREEN** wire to the motor vehicle seat/bonnet/sidestand switch. 5 seconds after the phase arming the alarm reads the switch position and it memorises it. A variation of the condition memorised generates an alarm condition.

- The **PINK** wire is the positive output when the alarm is armed max current 80mA @ 25° C. This output, if programmed, is active 5 seconds after the activation signals and it can be used to command an additional module or a satellite.

- Connect the wires **ORANGE** wires to the motor vehicle indicators.

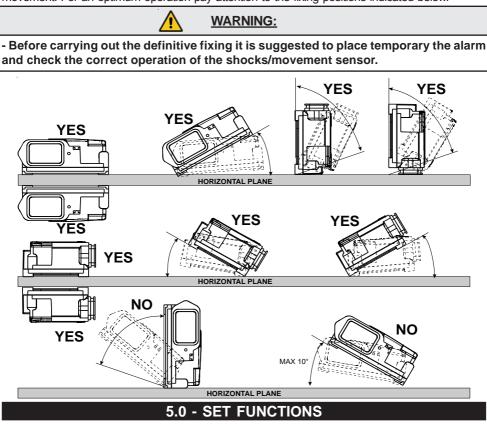
- Connect the **YELLOW** wire to an ignition switched live (+15/54) that remains live even when the engine is being cranked.

- The WHITE AND GREY wires are used for the first engine immobilisation. Max current 7 A.



4.0 - ALARM POSITIONING

The system is equipped with a "SENSOR" which allows to detect possible motor vehicle shocks/ movement. For an optimum operation pay attention to the fixing positions indicated below.



The system is equipped with a "SET FUNCTIONS" which allows to program and customize the alarm following to the user needs.

To access to the SET FUNCTIONS:

1 - The alarm must be disarmed.

2 - Switch the motor vehicle ignition on, place the GT889 handsets contacts to the receptacle and check that 5 quick beeps are emitted and the RED LED will switch on constant. The alarm is in SET FUNCTIONS mode.

3 - After 5 seconds starting from the function No.1a sequence of LED beeps corresponding to the function are emitted, the LED flashes can be GREEN or RED to indicate the function state. The sequential cycle of the LED flashes (from the function No.1 to the No.8) is repeated twice and after you come out from the SET FUNCTION.

4 - To select a function switch on-off the motor vehicle in correpondance of the relative signal, the LED illuminates of the colour which corresponds to the function state (test excluded).

5 - Within 10 seconds change the the function setting out by the OFF handset button. The setting out change is confirmed by the change of the LED colour and by a beep. After 10 seconds, starting from the last function selected, the function sequence will start again.

To come out from the SET FUNCTIONS:

Wait the end of the signal and place the GT889 handsets contacts to the receptacle (not during the Function No. 3 - HANDSETS SELF-CODING). The exit is confirmed by the Led switching off and by 5 beeps.

In the "FUNCTIONS TABLE" are mentioned the functions which can be selected.

SELF-CODING emergency procedure.

In case of GT889 handset-electronic key loss it is possible to enter the SET FUNCTIONS:

A - With the alarm disarmed disconnect the power supply and wait 1 minute.

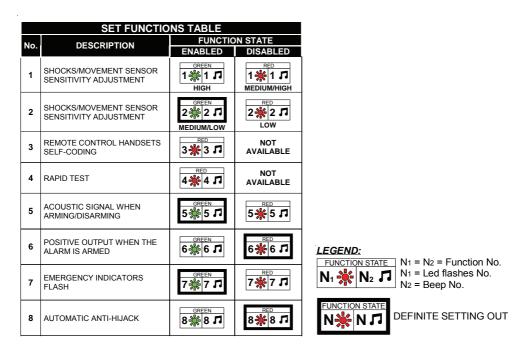
B - Short-circuit the RECEPTACLE/LED with a metallic body the RECEPTACLE/LED contacts.

C - Reconnect the power supply.

D - Turn the ignition key on-off 4 times (make a pause of 2 seconds at each state).

E - When the SET FUNCTIONS has been entered, this is confirmed by 5 BEEPS and by the RED LED constant switching on.

F - Remove the short-circuit between the RECEPTACLE/LED contacts and proceed as indicated in the self-coding procedure.



- SHOCKS/MOVEMENT SENSOR SENSITIVITY ADJUSTMENT (Function No. 1 No. 2).

With this function it is possible to adjust the shocks/movement sensor sensitivity choosing between 4 levels: high, medium/high, medium/low and low.

1 - Select the function and ENABLE/DISABLE pressing the "OFF" remote control handset button.

Note: on the Led it is visualised only the active adjustment. For example if it is active the High sensitivity the Led will emit 1 green flash during the function 1 and during the function 2 you will obtain 2 beeps without any Led signal.

- HANDSETS SELF-CODING (Function No.3).

With the function No. 3 it is possible to self-code new handsets to the control unit up to a max. of 8.

1 - Select the function and press the "ON" button to be self-coded.

2 - The system confirm the correct handset self-coding by a flash of the GREEN LED and by a beep.



- When you have entered the function the first handset which is self-coded deletes all the other handsets memorised.

- If you want to add one or additional handsets you have to self-code all of them.

- If you try to self-code an handset already self-coded or the handsets maximum number has been reached the system emits 3 anomaly beeps.

- RAPID TEST (Function No. 4).

With this function it is possible to check the correct system installation carrying out a test of all the alarm lines.

SEAT/BONNET/SIDESTAND test switch: if the alarm line is triggered the system generates 5 beeps and 5 GREEN flashes of the LED on the receptacle.

SHOCKS/MOVEMENT SENSOR test: to test the position sensor it is necessary to wait 5 seconds from the function enabling before moving the motor vehicle. When the movement is detected the system generates 2 beeps.

Ignition switched live test: if the alarm line is triggered the system generates 6 beeps and 6 flashes of the GREEN LED on the receptacle.

Wires cut test: removing the power supply to the alarm system a continuous s equence of beeps will follow. To come ou from the function deactivate the system by the "OFF" button or wait 30 seconds without triggering the alarm lines. In both ways you come out also from the set functions.

- ACOUSTIC SIGNAL WHEN ARMING/DISARMING (Function No. 5).

It is possible to program the acoustic signal (beep) to indicate the alarm arming and the disarming.

1 - Select the function and ENABLE/DISABLE pressing the "OFF" handset button.

- POSITIVE OUTPUT WHEN THE ALARM IS ARMED (Function No. 6).

This output, if enabled, is active 5 seconds after the arming, it can be used to command an additional module or a satellite system.

1 - Select the function and ENABLE/DISABLE pressing the "OFF" handset button.

- INDICATORS EMERGENCY FLASH (Function No. 7).

This function allows to activate the four emergency flashes (hazard warning) pressing the "OFF" remote control handset button with ignition key ON. The flash continues even removing the vehicle ignition key. It is possible to activate and deactivate the system. To switch OFF the four emergency flashes press the "OFF" remote control handset button again with the ignition key ON.

1 - Select the function and ENABLE/DISABLE pressing the "OFF" remote control handset button.

- AUTOMATIC ANTI-HIJACK (Function No. 8) (Available only with GT884N).

This function allows to block the motor vehicle in case the user is obliged to leave it with the engine on (theft attempt).

1 - Select the function and ENABLE/DISABLE pressing the "OFF" handset button.

6.0 - USER MANUAL

- HANDSET DESCRIPTION.

GT889: 3 buttons with electronic key incorporated.

GT884N: multifunction button (Optional).

It integrates a sensor which keeps the "LINK" transmission active. If the sensor doesn't detect vibrations for more than 2 minutes, it reduces the transmissions and so the battery consumption. **Note:** avoid falls and shocks to not damage the sensor.

-Button: to arm and disarm the alarm system.

- Switch: to activate/deactivate the automatic transmission.

- MANUAL ARMING/DISARMING.

<u>ARMING:</u> press the "ON" handset button, the arming is confirmed by an indicators flash, by a beep and by the constant RED LED switching on for 30 seconds, after it start flashing.

<u>DISARMING</u>: press the "OFF" handset button, the disarming is confirmed by two indicators flashes, by two beeps and by the LED switching off (the system emits 4 flashes and 4 beeps if during the "surveillance" an alarm has been detected and 5 additional beeps if an anomaly is present).

- AUTOMATIC TRANSMISSION ENABLING/DISABLING (ONLY WITH GT884N).

ENABLING: move the A switch to ON. To enable the "Link" function in the system carry out a manual transmission (i.e. disarming).

To enable, activate the alarm system manually (i.e. arming).

<u>DISABLING</u>: move the A switch to OFF. To disable the "Link" function in the system carry out a commutation with a remote control handset not in "Link" function.

- AUTOMATIC ARMING/DISARMING (ONLY WITH GT884N).

<u>ARMING</u>: going away from the motor vehicle the system arms automatically. The arming is confirmed by an indicators flash, by a Beep and by the RED LED constant switching on for 30 seconds, after that it starts flashing.

Note: with the GT884 remote control handset ("Link") it is not possible to arm the system manually, it is possible only to disarm it.

<u>DISARMING</u>: when you come back to the motor vehicle, to disarm the system it is enough to have with you the remote control handset in "AUTOMATIC TRANSMISSION-LINK" mode and turn the ignition key on. The disarming is confirmed by two indicators flashes, by two beeps and by the LED switching off (the system emits 4 flashes and 4 beeps if during the "surveillance" an alarm has been detected).

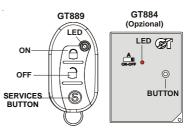
- SHOCKS/MOVEMENT SENSOR ISOLATION (only with GT889).

In the first 5 seconds after the arming a press of the "ON" button deactivates the shocks/movement sensor, the operation is confirmed by an indicators flash and by a Beep.

- PANIC FUNCTION

- After 10 seconds from the arming press the "ON" button for one second, a sound alarm starts with the contemporaneous indicators flash with a duration of 30 seconds.

- Press a second time on the "ON" button to stop it.



- EMERGENCYDISARMING.

In case of emergency (i.e. handset low battery) it is possible to disarm the system placing on the RECEPTACLE the electronic key integrated in the GT889 handset.

- IN CASE OF ALARM.

- Pressing the "OFF" handset button or approach with the handset in AUTOMATIC-TRANSMISSION-LINK mode" to disarm the system.

Note: it is possible to stop the alarm without disarming the system pressing the ON GT889 handset button.

- PRE-ALARM BY LINK.

If the system has been armed due to the "LINK" absence, the alarm causes are preceeded by a prealarm with BEEP and INDICATORS FLASH for 10 seconds.

- ANTI-HIJACK.

This function allows to block the motor vehicle in case the user is obliged to leave it with the engine on (theft attempt).

A-AUTOMATIC ANTI-HIJACK.

The operation occurs only by the GT884N (optional) handset in "AUTOMATIC TRANSMISSION-LINK" mode and with the Function No. 8 - AUTOMATIC ANTI-HIJACK enabled.

1 - With the ignition key on the LED illuminates constant RED to indicate that the anti-hijack procedure is reserved. If the LINK signal is missing for more than 30 seconds the system enters the anti-hijack phase.

2 -The LED illuminates constant GREEN.

3 - After 15 seconds the indicators start flashing.

4 - After other 15 seconds the system emits an alarm cycle with a duration of 30 seconds. If the ignition key condition continues another alarm cycle is generated.

5 - When the ignition key is switched off, the engine immobilisation is activated and it will block the starting. To the following vehicle ignition attempts an alarm cycle will be generated.

6 - To come out from the anti-hijack phase, in any phase, it is necessary to have the same handset in AUTOMATIC-LINK TRANSMISSION which has activated the function and to get closer to the motor vehicle. The confirmation is given by two flashes of the indicators, by two beeps and by the LED switching off.

B-MANUAL ANTI-HIJACK.

The operation occurs only by the GT889 handset enabled for ANTI-HIJACK.

1 - With the ignition key on press the GT889 "SERVICE" handset button.

2 -An indicators flash and the GREEN LED switching on confirm that the ANTI-HIJACK function has been activated.

3 - After 15 seconds the indicators start flashing.

4 - After other 15 seconds the system emits an alarm cycle with a duration of 30 seconds. If the ignition remains on another alarm cycle is generated.

5 - When the ignition key is off the engine immobilisation is activated and it stops the vehicle starting. An alarm cycle will be generated by attempting to start the vehicle.

6 - To come out from the anti-hijack state, from any phase, it is necessary to have the same GT889 remote control handset which has activated the function and press the "SERVICE" handset button. The operation will be confirmed by two indicators flashes, two siren Beeps and by the LED switching off.

ENABLE/DISABLE THE ANTI-HIJACK FUNCTION:

1 - Open the GT889 remote control handset, remove the battery and wait the led signalling.

2 - Press the "OFF" button and close the remote control handset.

3 - Keeping the "OFF" button depressed insert the battery in the remote control handset and wait the led signalling.

4 - If the led remains illuminated constant the function is ENABLED, if the led flashes the function is DISABLED.

5 - Release the "OFF" button and close the remote control handset.

6 - To change the function state repeat the procedure from the point 1 (at each repetition of the procedure the function changes state).

- PROTECTIONS.

When the system is armed the status check LED switches constant on, after 30 seconds the LED flashes. The ignition key, seat/bonnet/sidestand and wires cut protections are active 5 seconds after the arming, while the shocks/movement sensor is active when the status check LED flashes.

- SLEEP MODE (POWER SAVE).

To protect the motor vehicle battery the system operates a constant monitoring of the power supply voltage and/or reduction of the available functions in the time.

MOTOR VEHICLE BATTERY MONITORING: when the system is disarmed, if the battery reaches the threshold of 8V the alarm places in "SLEEP MODE".

<u>SLEEP MODE WHEN THE ALARM IS DISARMED</u>: when the alarm is disarmed, after 10 days the system places automatically in "SLEEP MODE". To reactivate the alarm switch the ignition key on.

<u>SLEEP MODE WHEN THE ALARM IS ARMED</u>: after 5 days the system doesn't accept the handset command anymore, but all the protections remain active. The normal operation is restored in case of alarm. In this condition the first cycle is preceded by a pre-alarm signal (beeps) of 10 seconds. During the pre-alarm it is possible to disarm the system.

- INDICATORS EMERGENCY FLASH (only with GT889).

- To activate the indicators flash turn the motor vehicle ignition key on and press the "OFF" handset button. **Note 1:** the flash continues even removing the key. **Note 2:** during the indicators flash is however possible to arm/disarm the system.

- To stop the indicators flash turn the motor vehicle ignition key on and press the "OFF" handset button.

- SERVICE MODE.

For the motor vehicle servicing, i.e. in winter, it is possible to place the alarm in SERVICE MODE.

1 - Turn the ignition key on and press the "ON" handset button. The system confirms the operation with 3 flashes of the RED LED.

2 - Turn the ignition key off and after 120 seconds the system places in POWER SAVE with a current consumption of very few microampere.

3 - To come out from the SERVICE MODE switch the ignition key on and arm the alarm with the handset during the 120 seconds.

- BACKUP BATTERY RECHARGE.

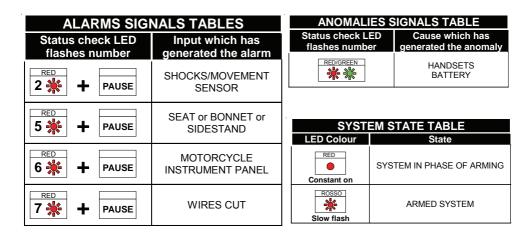
The device is equipped with internal battery to manage possible alarms due to tamperings on the electrical system when the thesystem is armed. The battery recharge occurs only with the motor vehicle ignition switched on. To recharge completely the battery 24 hours are needed.

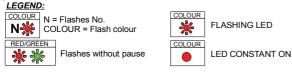
- ALARMS CHECK CONTROL AND ANOMALIES.

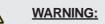
If during the surveillance state an alarm has been detected (4 indicators flashes and 4 beeps to the disarming) or there is anomaly it is possible to check the cause.

When the alarm is disarmed switch the ignition key on and check the LED flash as indicated in the ALA RMS SIGNAL TABLE and ANOMALIES SIGNALS TABLE.

- Motor vehicle low battery indication: when disarming with the handset if the motor vehicle battery is at 11,6V the system doesn't activate the indicators and after the normal acoustic signalling emits 5 anomaly beeps and when it is triggering it doesn't activate the indicators.







- The signals sequence of occurred alarms and anomalies detected is repeated at each motor vehicle switching on. .

- The alarm system memory is deleted to the following alarm system arming.
- When the anomaly is solved, the memory is automatically deleted.

7.0 - MAINTENANCE AND WARNINGS

MOTOR VEHICLE WASHING.

It is necessary to pay particular attention to any source of water spray. It is advisable, during this operation to protect it with a covering (i.e. cellophane).

- FUNCTIONS CHECK.

To have an always efficient system it is advisable to carry a periodic check of all the functions.

- HANDSET.

Do not expose the handset to excessive heat sources, water and shocks. For the battery replacement refer the picture below. The battery selling off has to always occur in appropriate way and it has to be in compliance with the local rules in force.

- PRACTICAL ADVICES.

The GT884 remote control handset operates through radio waves. Avoid to place it in zones which could compromise the operation (hip pockets, bags, etc.). Do not put together the remote control handset with the automatic transmission enabled to the bunch of keys.



- HOW TO REPLACE THE HANDSETS BATTERY. \



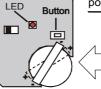
WARNING: the batteries selling off has to always occur in appropriate way and it has to be in compliance with the local rules in force.





- With care lever the front case for the printed circuit





Replace with a Lithium battery Mod. CR2032 (3V) for GT889 Mod. CR2450 (3V) for GT884

- The battery negative terminal has to be pointed upwards (with components) and the

Take out and insert the battery from this circuit side.

9-16V.

8.0 - COMPLIANCE DECLARATION

Getronic S.r.I. Via Calcinate, 12 Gavirate, Italy hereby declares that **GT970** is in compliance with the following European Directive:

R97

All Getronic products are compatible with the vehicle's original electronic systems.

The **GT889/884** remote control handsets are in compliance with the following European Directives as issued by the European Community:

EMCC DR. RASEC "Notified Body 0678" R&TTE 1999/5/CE (including the directives: EN 300 220 - EN 60950)

Chairman of the board Danilo Restelli

9.0 - TECHNICAL DATA

- Power supply:

- Working temperature:
- Max apllicable voltage:
- Current draw disarmed system:
- Current draw armed system:
- Current in "SLEEP MODE":
- Max current for engineS immobilisations
- Max current Blinker outputs:
- Max current Led output:
- Max current positive output:
- Serial Output/Input monowire:
- Self-power supply:
- Alarm and Panic time:

-40° / +85°. 36V/1minute <800μA. <1.5mA. <20μA. 7A. 5A. 25mA. 80mA. 4800 Kb. Battery 7,2V Ni-Mh - 120mA 30 seconds

10.0 - WARRANTY CONDITIONS

This Certificate should be kept in a safe place and produced for verification should technical assistance be required. Inability to produce this Certificate may affect your warranty rights. Warranty period bengins from date of purchase and is valid for 24 months.

Should technical assistance be required during the warranty period, you should take your vehicle and this Certificate to either the original installer or the nearest GT Auto Alarm Service Centre for inspection. Should any part of the security system be found to be defective, and providing all component parts of the system are of GT Auto Alarm manufacture, the defective part will be replaced or repaired free of charge. Warranty replacement/repair does not include the following items:

1) damage caused in transit/carriage; 2)damage caused by incorrect or poor installation; problems which may be caused by anomalies in the vehicle's electrical system or originating from the environment in which the system is operated. 3) damage caused by carelessness, negligence, misuse or repair by unauthorised personnel.

Units returned to our organisation under the terms of the warranty will be replaced or repaired within a reasonable time period according to our Company requirements.

Any repair/refurbishment received within the warranty period does not extend or renew the warranty itself.

Nobody is authorized to modify or replace anything in verbal or written format which alters the conditions of this warranty.

The manufacturer reserves the right to modify or improve the specification.

The alarm only defdeters burglary attempts. Our company cannot accept liability for any consequential damage or loss to persons or property as a result of purchase of a GT Auto Alarm system.

Any correspondence for litigation purposes shall be received at our headquarters in Gavirate (Varese) - Italy.

Installation Certificate We certify that the alarm system installation has been carried out following these fitting and that the technical data has been handed over.		Warranty coupon Alarm model	
ALARM MODEL:	INSTALLATION DATE:	INSTALLED ACCESSORIES:	
POSSIBLE INSTALLED ACCESSORIES:	STAMP AND INSTALLER SIGNATURE:	INSTALLATION DATE:	
MAKE AND MOTOR VEHICLE MODEL:		STAMP AND INSTALLER SIGNATURE	

12

Ā

По вопросам продаж и поддержки обращайтесь:

Архангельск (8182)63-90-72 Астана +7(7172)727-132 Белгород (4722)40-23-64 Брянск (4832)59-03-52 Владивосток (423)249-28-31 Вологорад (844)278-03-48 Вологорад (844)278-03-48 Вологорад (844)278-03-48 Воронеж (473)204-51-73 Екатеринбург (343)384-55-89 Иваново (4932)77-34-06 Ижевск (3412)26-03-58 Казань (843)206-01-48 Калининград (4012)72-03-81 Калуга (4842)82-23-67 Кемеррев (3842)65-04-62 Киров (8332)68-02-04 Красноврск (391)204-63-61 Курск (391)204-63-61 Курск (4712)77-13-04 Липецк (4742)52-20-81 Магнигогорск (3519)55-03-13 Москва (495)268-04-70 Мурманск (8152)59-64-93 Набережные Челны (8552)20-53-41

Нижний Новгород (831)429-08-12 Новоскузнецк (3843)20-46-81 Новоскубирск (383)227-86-73 Орел (4862)44-53-42 Оренбург (3532)37-68-04 Пенза (8412)22-31-16 Пермь (342)205-81-47 Ростов-на-Дону (863)308-18-15 Рязань (4912)46-61-64 Самара (846)206-03-16 Санкт-Петербург (812)309-46-40 Саратов (845)249-38-78 Смоленск (4812)29-41-54 Сочи (862)225-72-31 Ставропом. (8652)20-65-13 Тверь (4822)63-31-35 Томск (3822)86-41-53 Туля (4872)74-02-29 Тюмень (3452)66-21-18 Ульяновск (8422)24-23-59 Уфа (347)229-48-12 Челябинск (351)202-03-61 Череповец (8202)49-02-64 Чроспавль (4852)66-52-93

сайт: www.jablotron.nt-rt.ru || эл. почта: jnb@nt-rt.ru