

Installation manual: CA-1803BT “Athos” – mode 1

for cars without an original remote control for central locking

Main features for this mode:

- Remote control of car central locking (if installed) via a remote control.
- Sending alarm and information SMS messages to up to 4 mobile phones.
- Dialling pre-programmed phone numbers during alarms and giving an acoustic warning signal.
- Monitoring the vehicle's movement via GPS (Global Positioning System).
- Passing data to the central monitoring station.
- Remote immobilization of the car via SMS instructions.
- Remote control and programming of the alarm system from a mobile phone.
- Securing the vehicle's goods area and the garage via up to 8 wireless detectors of the JA-8x series.
- Handsfree calling from the car and remotely listening-in to the car (receiving of any incoming calls and dialling up to 4 pre-programmed phone numbers).
- Extension of functions via the CR-11A module, for example, operating an independent car appliance via SMS (12V only).
- Internet access and configuration from the www.GSMLink.cz web site.

1. Before installation

The auto-alarm should only be installed by a professional installer. It is suitable for cars with a dashboard voltage supply of 12V or 24V with a negative ground connection. During the first power-up, the value of supply voltage is read and the inputs are set to default settings. The alarm is designed to be installed inside the car.

The immobilizer relay contact of car alarm is connected only in disarmed mode and if the ignition is on. Do not block circuits that are under voltage while the ignition is on. It could cause a serious damage of the vehicle.

Disconnect the car battery before starting installation. For airbag-equipped cars, no person is allowed to stay inside the car while handling the battery. Disconnecting the battery can cause a reset of some of the car's devices (e.g. clock, default settings etc.). Avoid drilling into the metal parts of the car body. The manufacturer is not responsible for damage caused by any incorrect or unsuitable application of the product.

For crimping, special purpose tools should be used. If you do not use some of the cables, cut them off at a distance of 10cm from the connector, insulate them properly and tie them into a bunch.

For cars with a voltage supply of 24V, the following restrictions apply to car alarm installation:

1. It is not possible to connect a hands-free set of type HF-03.
2. When used for acoustic signalling, the SIR output is switched to the power supply voltage. Consequently, this output switches to 24V, so it is necessary to use a siren of type SA-606-24V instead of the siren which is supplied in the standard package. In this case it is necessary to set the confirmation beeps to 100 ms.

2. The wiring

Before installation, connect the wires as follows:

- **Yellow** – output **siren** – switches to +12V (24 V) / max. 1.3 A. It signals an alarm (30 sec) and confirms control signals¹.
- **Gray** – **door switch** input. It reacts to connection or disconnection from ground. These switches should be fitted to all of the car's doors.
- **White** – **input INP1** – alarm input. It reacts to a connection or a disconnection from the ground
- **Yellow-white** – **input INP2** – alarm input. It reacts to a connection or a disconnection from the ground. This input can trigger an alarm even if disarmed (24 hour reaction).
- **Blue** – signals **that the ignition key is turned on**. Reacts to +12V (24V) from the switch case. Make sure that a voltage is present in the connecting wire while starting.
- **Green** – **LED indicator** – should be installed in a visible place on the dashboard.
- **White-black** (position 10) – **“Lock”, White-blue** (position 11) – **„Unlock“** – Central locking control outputs. They switch to ground (max. 200mA) with a selectable pulse length. For MODE 1, a pair of wires with black shrinkable tube should be put into the connector. The wires are equipped with black isolation diodes which protect the functionality of cars with an intelligent central unit.
- **Black** – **ground** – connect to the original grounding point.
- **Red** – **power supply +12V (24V)** - connect directly to the battery. The power should be turned on only after a thorough check of the whole installation has been made!
- **Orange** – **back-up battery** – connects to a back-up battery of type BB-02 (capacity 450 mAh, consumption up to 20 mA.)
- **2x Brown** – immobilization circuit (max. 8A constantly, 12A intermittently).

- **Pink** – **output AUX** – an optional function of the output, see table 7 – the power supply of external sensors is switched on by +12V/20mA or by bus communication for modules CR-11A

It is possible to **attach a hands-free set** of type HF-03². Using this you are able to phone out from the car via the car alarm, and also to remotely listen-in to the car after an alarm has been triggered or after the car has been immobilized. The HF set connects to the RJ connector on the front side of the car alarm unit.

3. SIM card insertion

1. Make sure, that the **PIN number on the SIM is disabled**. If the SIM card does not allow you to switch the PIN off, set the PIN to 0000. Remember (note down) the phone number of your SIM card. It is recommended to delete all original records in the SIM card's phone directory.

2. **Insertion of the SIM card:** using a thin object, press the yellow peg in order to pull out the SIM card holder (the front side of the alarm), insert the SIM card into the casing with the conducting contacts facing up and push the casing back carefully.

3. **Install and attach the GSM antenna**– (the car alarm must not be connected to a power supply unless a GSM antenna is connected !!!). The antenna is equipped with an adhesive tape and has to be stuck onto the car's window or to another suitable place like, for instance, below the upper part of the dashboard. The antenna should not be installed close to the car alarm or near other electronic devices. It is recommended to install the antenna in a place where it is not easily visible (preferably in a tinted part of the window). Clear and dry the spot carefully.

4. **Install provided GPS antenna** - place the antenna so that it will not be shielded by metal parts of the car. It can be installed just under the top part of a dashboard (turned with the black plastic cover upward) (the antenna can be shielded by plastic materials). Wrap both connectors using plastic sticky tape as they are connected to GND.

5. **Check the wiring** and connect the power supply. A flash of the indicator and a beep of the siren indicate that the device is being connected to the GSM network. Wait until the indicator turns off (up to 1 minute). After that the car alarm is logged in to the GSM network.

If the flash does not disappear within 1 minute, it means that the login process failed. If such a case occurs, turn off the power supply, pull out the SIM card, ensure that the SIM contacts are clean, insert the card into a mobile phone and check, whether a connection can be established in that particular place. Also make sure that the SIM card's PIN is turned off (or that it is set to 0000). If the mobile phone connection check is successful, return the SIM card to the car alarm and repeat the whole procedure.

4. After turning the power supply on

In order to use the functionality of the car alarm according to your needs you first have to setup its logic and behaviour by the RESET command. Subsequently, phone numbers and other optional parameters should be set up and an RC-8x key fob should be enrolled. The setup can be done in the following ways:

- **by editing a record in the SIM card phone directory** (it is the simplest setting method but limited to some functions only, see table 5.1). These settings (which determine the devices' behaviour) are read from the SIM card after each powering up of the car alarm. After the initial powering up of the new car alarm with a new (blank) SIM card, configuration records (names) are created in the SIM card's phone directory and the default values set. But in the case that the alarm had been set before and a new (blank) SIM card is then inserted, then the stored parameters are copied from the internal memory to the SIM card. This will help you after SIM card changing. You can perform basic settings of some of the car alarm's functions by pulling the SIM card out of the alarm (after the power supply has been disconnected) and subsequently inserting it into a mobile phone where you assign numbers to the names of functions displayed in the phone directory from the SIM. See table 5.1 for setting the car alarm's optional parameters. Settings from the SIM card are read after its insertion and powering up.

¹ this function is optional
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² these accessories are optional
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- **via the Internet page www.GSMLink.cz** which is the most convenient way. To register there you need the registration code printed on the warranty card and the master code (factory default is MASTER).

- **by sending command SMS messages** via a mobile phone, see table 5.1.



The choice of the correct car alarm mode should be made first. If you use the car alarm in such a way that it is operated by its own key fobs, it is necessary to select MODE 1. The settings can be done by storage in the SIM card (put RESET into the phone directory as a name and add "1" to the phone number field) or by the SMS command "MASTER RESET EN 1" which has to be sent to the car alarm's SIM card number. Performing a RESET is indicated by 4 beeps. The factory default is MODE 0 without any function assigned, except that the immobilization relay switches on after the ignition key has been turned on. It is possible to put the car alarm to RESET 0 mode also in the case, that its functionality should be cancelled entirely.

By carrying out a RESET, you delete all the car alarm settings as well as all the previously enrolled remote controllers and wireless sensors. See configuration table 5.1 for performing any subsequent settings.

5. Enrollment of remote controls and detectors

Up to 4 RC-8x remote controllers and up to 8 JA-8x wireless detectors can be enrolled. The detectors can be enrolled as either internal or external. When the car alarm is only partially armed, the detectors enrolled as internal are excluded from the system (see 8.1 for operating the car alarm). The external detectors perform protection for every type of arming.

Steps to enroll RC-8x controllers:

1. The car alarm should be disarmed, with the ignition on.
2. Send the SMS instruction MASTER LEARN RC
3. The car alarm beeps 3 times and an LED starts to flash.
4. The RC-8x controller is enrolled by pressing buttons  and  simultaneously for approx. 3 sec. A siren chirp confirms the enrollment. By enrolling the first remote control all other remote controls

previously enrolled will be erased (so enroll all the controllers intended for use, one by one).

5. Exit enrollment by turning the ignition off. The alarm confirms the enrollment by sending an SMS message to authorized phones TEL1 to TEL4.

Steps to enroll internal detectors:

1. The car alarm should be disarmed, ignition on.
2. To enroll the **internal** detectors, send the SMS command MASTER LEARN INT
3. The car alarm beeps 3 times and an LED starts to flash.
4. The detector is enrolled by inserting a battery. By enrolling the first detector all detectors enrolled as **internal** will be erased (so, enroll all the detectors which will be used as internal ones).
5. Exit enrollment by turning the ignition off. The alarm confirms enrollment by sending an SMS message to authorized phones TEL1 to TEL4.

Steps to enroll external detectors:

1. The car alarm should be disarmed, ignition on.
2. To enroll the **external** detectors, send the SMS command MASTER LEARN EXT
3. The car alarm beeps 3 times and an LED starts to flash.
4. The detector is enrolled by inserting a battery. By enrolling the first detector all detectors enrolled as **external** will be erased (therefore, enroll all the detectors which will be used as external ones).
5. Exit enrollment by turning the ignition off. The alarm confirms enrollment by sending an SMS message to authorized phones TEL1 to TEL4.

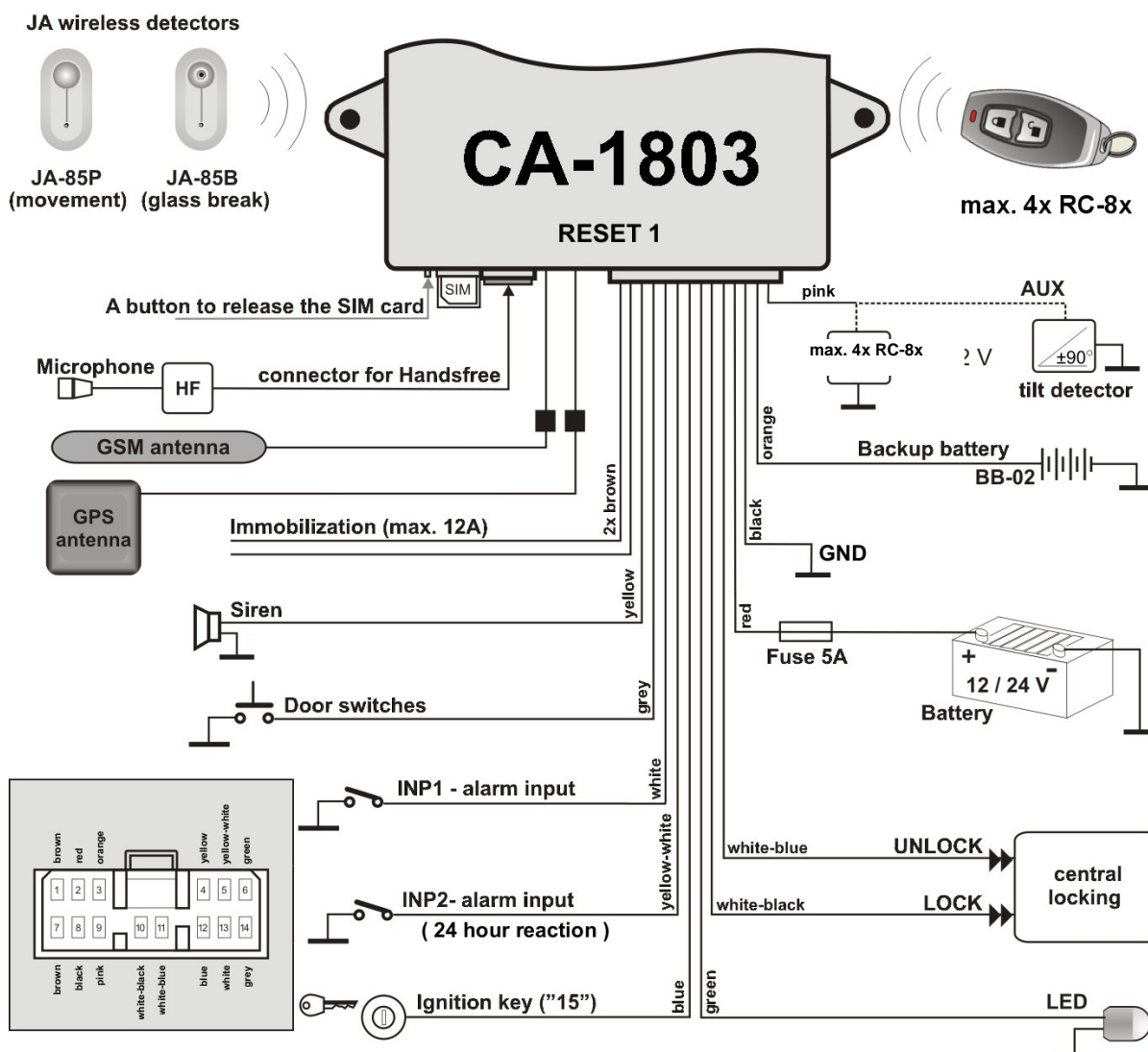
If a detector is switched to delay mode, the alarm will provide a 20 second entrance delay after the detector has been triggered. An exit delay of 20 seconds is provided to all enrolled detectors after the car alarm has been armed.

*If a sensor has been enrolled as an **internal** one, it can be re-enrolled as an **external** one by its enrollment to the desired group.*

If a group of detectors should be erased, take the same steps as with enrollment, except that a "0" should be added to the instruction (e.g. "LEARN INT 0"). This starts enrollment and erases previously enrolled detectors. If no new detectors should be enrolled, only turn the ignition off.

In case of low battery of any enrolled detector the SMS report will be sent to the first phone number stored in the car alarm's memory.

Fig. 1: Wiring the alarm in RESET 1 mode. Wiring the alarm this way makes it possible to control the car's central locking.



Configuration table - be careful to **put spaces** between words in SMSes (e.g. MASTER RESET EN 1).

SIM entry*	SMS instruction Text	Description
RESET EN 1 (After which, the entry is erased from the SIM)	MASTER RESET EN 1	Mode setting. RESET 1 = alarm has its own remote control and provides signals for central locking. Performing the RESET instruction is indicated by 4 beeps. Consequently, all settings, enrolled remote controllers and wireless detectors will be erased.
Not applicable	MASTER UC uuuu	User code setting – the code allows you to operate the alarm remotely via SMS from unauthorized phones. uuuu is a new user code, 4 to 8 letters (A–Z & 0–9, case insensitive). Factory default user code is USER
Not applicable	MASTER MC xxxx	Master code setting –xxxx is a new master code (A–Z & 0–9, case insensitive). The code allows you to change the maintenance settings for the car alarm. Factory default master code is MASTER
TEL1 xx...x	MASTER TEL1 xx...x	Setting of phone numbers to report alarms to (these phones will also be authorized to control the alarm via SMS without a user password) E.g.: MASTER TEL2 +420602123456 will enter the phone number into memory TEL2 MASTER TEL3 0 will erase the memory TEL3.
TEL2 xx...x	MASTER TEL2 xx...x	
TEL3 xx...x	MASTER TEL3 xx...x	
TEL4 xx...x	MASTER TEL4 xx...x	
DIAL1 xx...x ●	MASTER DIAL1 xx...x	Setting the phone numbers to dial using Hands free. E.g.: MASTER DIAL2 +420602123456 will assign the number to the ○ button of the remote controller. MASTER DIAL2 0 will erase the number assigned to the ● button.
DIAL2 xx...x ○	MASTER DIAL2 xx...x	
DIALA xx...x 6	MASTER DIALA xx...x	
DIALB xx...x 7	MASTER DIALB xx...x	
Not applicable	MASTER LEARN RC	Enrollment of RC-8x controllers - up to 4 controllers can be enrolled, turn the ignition key on before sending the instruction. To enroll controllers, press and hold buttons 6 and 7 together for 3 seconds. After you have enrolled all remote controls, turn the ignition key off. By enrolling the first controller all other controllers previously enrolled will be erased. All the desired controllers should be enrolled in a single enrollment session.
Not applicable	MASTER LEARN INT (EXT)	JA-8X wireless detector enrollment – see the description in section 5. Up to 8 detectors can be enrolled (the total of both groups). Turn the ignition key on before sending the instruction. To enroll the sensors, insert their batteries. After you have enrolled all detectors, turn the ignition key off. All desired detectors from a single group should be enrolled in single enrollment session.
DIP abcdefghij	MASTER DIP abcdefghij	DIP parameter entry – see the DIP table
SET abcdefghij	MASTER SET abcdefghij	SET parameter entry – see the SET table
TELU xx...x	MASTER TELU xx...x	SIM card validity maintenance call setting (for pre-paid cards) 1x month the xx..x number is called, call duration 10 s to maintain the validity of SIM cards requiring this.
Not applicable	MASTER TXT 01,text	Modifying SMS messages and instructions (see chapter 9.1). The maximum length of a single text is 30 characters. <i>Information texts</i> (with indices starting at 27) can be modified using the user code USER (optional). To change <i>instruction texts</i> (indexed by 01 to 26) the MASTER installation code is always necessary.

*It is not possible to modify access codes or SMS texts to enroll controllers or detectors by storing numbers in the SIM card phone directory.
Always use CAPITAL letters when writing into the SIM card!!!

6. DIP parameters

Parameters A to J correspond to DIP switches. Setting is performed by SMS: MASTER DIP ABCDEFGHIJ

DIP	Description	
	0	1
A	0 = silent arming/disarming without siren chirps 1 = 10 ms siren chirps when arming/disarming (non backed-up siren) 2, 3, 4 ... 9 = siren chirps when arming/disarming (a siren of another type) lasting 20, 30, 40, 50, 100, 200, 300 or 500 ms	
B	Silent alarm	Audible alarm
C	SMS alarm report only	SMS alarm report and siren sound phone call
D	SMS remote control not confirmed by SMS reply	SMS remote control instructions confirmed by SMS reply
E	0 = arming control by dialling-in disabled 1 = arming control by dialling from TEL1 enabled 2 = arming control by dialling from TEL1 and TEL2 enabled 3 = arming control by dialling from TEL1, TEL2 and TEL3 enabled 4 = arming control by dialling from all TEL1 to TEL4 enabled	
F	Arming control by dialling in is not confirmed by SMS	Arming control by dialling in (see E) is confirmed by SMS to the phone which called the car alarm
G	User can not change SMS Texts	User can change SMS texts by TXT Sequence
H	REARM disabled	If the car is not entered within 1 minute after disarming, it will REARM
I	0 = Immobilization by arming and by SMS instruction ** 1 = Immobilization by arming and automatically 5 minutes after ignition is turned off (AUTOIMO) and also by SMS instruction ** 2 = Immobilization only by SMS instruction 3 = Immobilization and also by SMS instruction. If disarmed and ignition is turned off for more than 60 minutes the SMS STATUS is sent as an alert to possible forgotten arming.	
J	Self-location disabled	The car's location will be sent by SMS after an IMO instruction has been performed.

Factory default setting is DIP 1111000000 (bold letters in the text).

* When the car is armed, the immobilization circuit is inactive. To activate the circuit after the car has been disarmed, it is necessary to turn the ignition key on.

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** This SMS instruction results in immobilization that can only be cancelled via an appropriate SMS instruction. Arming or disarming the car will not mobilize the car in this case.

7. SET parameters

Parameters A to J correspond to SET switches. Setting is performed by SMS: MASTER SET ABCDEFGHIJ

SET	Description	
	0	1
A	0 = open door signalling and INP activation while arming are both disabled 1 = open door signalling and INP activation while arming are both enabled 2 = INP activation while arming enabled, open door signalling enabled with a 10 second delay 3 = INP activation while arming enabled, open door signalling disabled	
B	Voltage detector disabled	Voltage-drop detector enabled
C	lock / unlock signal duration 0 = 0.5 / 0.5 sec (suitable for electromagnetic locks) 1 = 4 / 4 sec (suitable for pneumatic locks) 2 = 60 / 0.5 sec (suitable for automatic window closing)	
D	DOOR input logic: 1 = activated by falling edge (grounding) 2 = activated by rising edge (disconnecting from GND)	
E	INP1 logic: 1 = activated by falling edge (grounding) 2 = activated by rising edge (disconnecting from GND)	
F	INP2 logic: 0 = activated by falling edge (grounding), it triggers an alarm also if disarmed (24 hour reaction) 1 = activated by falling edge (grounding) 2 = activated by rising edge (disconnecting from GND)	
G	no function in Mode1, you can enter 0	
H	no function in Mode1, you can enter 0	
I	When armed, no monitoring of GPS location changes	GPS location changes are monitored when armed *
J	0 = AUX output is a bus for communication with CR-11A modules 1 = AUX output provides power for external sensors	

Factory default setting is SET 1001111101 (bold letters in the text).

If you want to change only particular DIP or SET parameters, enter x for the others (i.e. MASTER SET xx2xxxxxxx will set an extended locking signal for closing the windows).

* This setting can cause false alarms due to possible inaccuracy in the determination of GPS coordinates. Such an inaccuracy can appear as a consequence of an obstructed signal path, low signal level, satellite interference, etc. It is recommended to use this as only a complementary function.

8. User instructions

8.1. Remote control arming and disarming

Button **Ⓜ** is used to arm and lock the vehicle completely. Using the **Ⓜ** button the car can be disarmed and unlocked. If you re-press the **Ⓜ** button within 15 seconds after arming, partial arming occurs (confirmed acoustically). In this mode, the internal wireless detectors are not active, nor is the low voltage sensor. Also no voltage is supplied for external sensors. Using the CR-11A module, pressing the buttons **Ⓜ** and **Ⓜ** together allows you to use additional functionality (e.g. switching independent heating).

8.2. SMS control from an authorized phone

Text SMS	Description
AM	ARM and lock the car
AM EXT	Partially ARM and lock the car
DM	DISARM and unlock the car
IMO	STOP (immobilize) the car (after turning ignition key off)
UNIMO	Unblock (mobilize) the car
STATUS	Car alarm will reply with status information, e.g. „car reports: Time: 27.01.04 13:04, Status: Armed, Unblocked, Ignition off“.
HELP	The car alarm will reply with a brief list of SMS instructions.
UC xxxx	To change the user code. xxxx is the new user code, 4 to 8 characters (A–Z & 0–9). Factory default user code is USER
CREDIT parameter	To obtain the balance of a prepaid SIM card if used. See 13.6-8 for details
AUX parameter	To operate CR-11A output relays as well as the appliances or circuits that are connected to these relays (see par. 13)
HF abcdef	Hands-free set adjustment: a – enable calls (0= disabled, 1=enabled) b – auto answer incoming calls (0= disabled, 1=enabled) c – microphone sensitivity 0 to 9, (5) d – speaker volume 0 to 9, (5) e – ringing tone volume 0=mute to 9= max., (5) f – ringing sound 0 to 9, (1)
GPS	Sends information about the latest detected location using GPS coordinates (Global Position System)
SIREN	To activate the siren for 30 seconds

- The instruction must contain spaces (e.g. HF 105551).
- If an SMS instruction is sent from an **unauthorized phone**, it is necessary to put a user code before the instruction (default is USER). Again, a space is necessary. An example of arming from an unauthorized phone: USER AM
- SMS instructions are not case-sensitive. Only basic ASCII can be used in the SMS instruction texts.
- If the SMS text contains the % sign, then the following text will be ignored. Characters %% in the message stop processing the following text. Using these characters is suitable when sending an SMS from an internet gateway which adds more text – advertisements etc. When using the % character it is **always** necessary to insert the Master or User code followed by a space before the command itself.
- SMS instructions can be renamed. Example: It is possible to replace "AM" by "LOCK".
- The parameters in bold are factory defaults.

8.3. Dialling-in remote control

Complete remote control by dialling-in from an authorized phone is possible (see table DIP – parameter E). If you dial the car alarm number from an authorized phone, it will cause a change of state (arming, disarming, etc.). A call to the alarm is free of charge (the car alarm will not answer the incoming call). If operated by dialling-in after an alarm has been triggered, a slight delay can occur. If disarmed by dialling-in after partial arming, then a subsequent dialling-in will cause complete arming. Change of state after dialling-in can be confirmed via SMS (optional).

8.4. Phone calls by handsfree set (HF-03)

If the HF-03 hands free set is installed, it is possible to receive calls and to dial pre-programmed phone numbers DIAL x. When the **ignition key is on**, the remote control (RC-8x) allows you to operate the hands free set. The call is done via the car alarm's SIM, the handsfree set is not usable for other phones.

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Incoming calls – to answer them, press any button on the RC-8x remote control. By pressing any button again, the call will be terminated.

Calls can be automatically answered, see the HF instruction manual.

Outgoing calls – when the ignition key is on, the RC-8x allows you to call up to 4 pre-programmed numbers (see chapter 5.1).

When armed, all incoming calls are automatically rejected. If the car is immobilized or after an alarm has been triggered all calls are automatically answered (it is possible to listen in).

8.5. Alarm

When an alarm is triggered, the siren will sound for 30 sec., warning SMS messages will be sent to all phones (TEL1 to TEL4) and these phones will also be called with the siren sound. If automatic location is turned on, a request for location detection is sent. After the user stops the alarm, all transmissions are terminated.

To stop the alarm, disarm the alarm by pressing the **Ⓜ** button on the remote control or by a disarm SMS instruction (DM). The DM instruction unlocks the car at the same time. After the alarm has been stopped by a user in a regular way, an SMS will be sent informing about alarm termination.

Example of an alarm SMS:

Your car reports: Alarm, INP activation, Time 10.12.04 01:45

Mercedes reports: Alarm, FIRE, garage sensor activation, Time 11.02.04 01:12

8.6. Acoustic signalling of arming/disarming

If acoustic signalling is ON (see table 6), the arming is confirmed by 1 beep and disarming by 2 beeps. Partial arming is indicated by two short beeps. Three beeps while disarming the car indicate that an alarm was triggered during the armed state. If arming a car with an active alarm input (e.g. open car boot) arming is supplemented by four short beeps. The siren will also indicate triggering of a wireless detector which provides an entrance delay (by a single beep).

9. Editing SMS texts

The SMS texts (alarm information and instructions) are factory pre-programmed. However, it is possible to change these texts using a mobile phone or via the www.GSMLink.cz internet page. This makes communication convenient for the user.

To change text by mobile phone, send an SMS as below. A single SMS enables you to specify changes to several texts. Terminate each text with a comma:

MASTER TXT zz,text,zz,text,...

where: **zz** is the text index (see following table)
text is your new text – up to 30 characters, full stop (dot) or comma cannot be used in the text, spaces are allowed

Example: MASTER TXT 01,LOCK PLEASE

Text numbers 01 to 26 are instructions requiring a MASTER code for their modification. If you modify these texts, you change the instructions which the car alarm will respond to. For example, replacing "STATUS" with "STATE PASSWORD" will cause that state detection will be obtainable by "STATE PASSWORD" only. This way you can insert a "password" into the texts which prevents misuse. All other texts are of informational character and correspond to particular events, states and input names. This allows you to adjust the names to a form which suits you well. For example, "INP 1" can be replaced with "bonnet" etc. Texts can be replaced using the MASTER code as well as the USER code (optional).

A convenient way for text modification is to use the GSMLink web page, see paragraph 11.

SMS text table

zz	Factory default text	zz	Factory default text
SMS commands:		48	Telephone 4
01	AM	49	Telephone – UC
02	DM	50	Telephone – MC
03	IMO	51	Wireless detector 1
04	UNIMO	52	Wireless detector 2
05	STATUS	53	Wireless detector 3
06	HELP	54	Wireless detector 4
07	CREDIT	55	Wireless detector 5
08	DIAL	56	Wireless detector 6
09	HF	57	Wireless detector 7
10	LOCATOR	58	Wireless detector 8
11	MC	59	Wireless controller 1
12	UC	60	Wireless controller 2
13	DIP	61	Wireless controller 3
14	TEL	62	Wireless controller 4
15	LEARN	63	Vehicle in move
16	SIREN	Status information:	

17	SET	64	Car alarm reports
18	AUXA	65	Status:
19	AUXB	66	Armed
20	GPS	67	Disarmed
21	TIME	68	Ignition key ON
25	ON	69	Ignition key OFF
26	OFF	70	Engine is blocked
Events:		71	Engine is unblocked
30	Alarm	72	No alarm
31	Alarm cancelled by a user	73	Alarm timeout
32	Fire alarm	74	Low battery voltage
33	Tamper alarm	75	Power failure
34	Disarming	76	Power recovery
35	Arming	77	Time
36	Low battery voltage	78	Low back-up battery voltage
37	Engine is blocked	79	Partially
38	Engine is unblocked	80	Location
Source:		Confirmation SMS:	
40	Ignition key	81	Command accepted
41	Door contact	82	Command syntax error
42	INP1 activation	83	New MC code:
43	INP2 activation	84	New UC code:
44	Low battery voltage sensor	85	Reset
45	Telephone 1	86	Registered phone number:
46	Telephone 2	87	Credit:
47	Telephone 3	88	LEARN mode, enrolled

Use only ASCII character set during the text edition.

10. Functions related to GPS

An integrated GPS (Global Position System) allows the car alarm to provide information about car location with a high precision. The location can be obtained upon an SMS request or via the GSMLink internet web page. A service for regularly sent location information is also available. The car alarm is capable of recording all the car's locations into internal memory while the car is being used (optional).

Records can be used for statistics about car use (route listing etc.). The information is also partially available via the GSMLink internet page. Fully-fledged use is possible using a special service only. In that case, a central monitoring station is required with information being automatically downloaded. For more information, consult the manufacturer or visit the <http://www.jablotron.com> web page.

10.1. Location detection using GPS

Using a GPS instruction, you can instantly detect the car's location. The car alarm responds with the coordinates of the latest known location. If the current location is not available at the time of reception of the instruction, or if the car alarm does not change its global position for a while, the latest location stored in internal memory is sent. Therefore, messages are supplemented with GMT (Greenwich Mean Time). The value corresponds to the time of detection related to the prime meridian. In addition, information about altitude, velocity and local time of the GSM network is provided. Information about location can be sent automatically after an alarm has been triggered (see the DIP switches description).

An example of an instruction sent from an authorized phone: GPS

An example of response: Car alarm reports: Location:

(GMT:3.12.10:35) 50°43.495N;15°11.253E;515;50, Time:3.12.05 11:35

(GMT:3.12.10:35) Greenwich Mean Time (mean meridian)
50°43.495N;15°11.253E latitude and longitude
515 altitude (approximated)
50 current velocity
Time:3.12.05 11:35 current local time

10.2. Time zone setting

To adjust the time information to local time, time zone setting is possible. The car alarm adds/subtracts the time shift, expressed in hours, to the GMT time (for middle Europe: +2 hours in summer time, +1 hour in winter time). This instruction is only available with the MASTER code.

Instruction: MASTER TIME ±xy

xy is the time shift in hours -3,-2 ...+1,+2 relative to GMT

MASTER TIME GSM

turns on automatic setting via incoming SMS.

10.3. Location change in the armed state

The car alarm allows you to supervise changes in the location of the car in the armed state. See the corresponding SET parameter.

If switched ON, every change of car location detected during the armed state triggers an alarm. Because the GPS receiver could be in stand-by mode (due to energy saving) the car alarm could react with a delay of up to 10 minutes. This function depends on the accuracy of

location determination; therefore only use this function as information, not as a security function.

10.4. Integrated Bluetooth module (BT)

A Bluetooth module is supplied as a built-in part of the CA-1803BT car alarm. The module allows the car alarm to communicate with nearby devices equipped with Bluetooth connectivity. For devices like PDAs, MBAs or mobile phones, such communication can make use of navigation software running on these devices. When disarmed and with the ignition key on, the car alarm sends GPS coordinates via the BT which can be used for navigation. The car alarm authorization code for device-pairing is 0000. The ignition key must be on during the pairing process.

If the car stands still for more than 10 minutes, GPS data transmission may start with a delay of up to 1 minute.

11. Internet remote access

The web site www.GSMLink.cz enables car alarm remote control (to users) and setting (to installers).

To get internet access to an installed and powered car alarm you will first be asked to register your car alarm on the first page. You will find a unique registration code for your car alarm on the warranty card.

12. Central monitoring station communication

The GSM communicator allows central monitoring via GPRS data protocol. The central monitoring station (CMS) gets arming, disarming and alarm information. It also regularly checks the communication link to the car after it is armed. So if anyone tries to tamper with GSM communications, it will indicate an alarm at the CMS.

13. Additional features

13.1. Car battery low voltage reporting

The built-in voltage drop detector can trigger an alarm if an electrical device in the car is turned on while the car is armed. The sensor is active 10 minutes after arming.

13.2. Passive guarding

Via the DIP 1 parameter it is possible to block the car against starting up the engine, if the ignition key is turned off for 5 minutes and the alarm is not set. The function can be turned off by pressing any key on the RC-8x remote controller. It is also possible to set up the parameter to send a STATUS SMS, which informs the user that the alarm is not set; in the case that the ignition key is turned off for 60 minutes and the alarm was not set.

13.3. Remote siren activation

You can operate the siren remotely by the SIREN instructions. These instructions are accepted from all authorized (stored) phone numbers. Commands are also accepted from any unknown phone number if they start with the USER code.

Instruction	Status
SIREN ON	activates SIR output permanently
SIREN OFF	deactivate SIR output
SIREN	activates SIR output for 30 sec.
SIREN xxM or SIREN xxxS	xxM – is a numeric value of the duration of SIR output activation , in minutes xxxS – as above, but in seconds).

13.4. Limited number of alarms

If any sensor (input) repeatedly triggers alarms then this particular input will be bypassed automatically after the third alarm (it will remain bypassed until the car alarm is disarmed).

13.5. LED indicator signals

LED state	Meaning
OFF	Disarmed
permanently ON	Connecting to a GSM network or a phone call
Regular slow flashing	Armed
Regular fast flashing	Alarm memory
Interrupted light	Car was stopped (immobilization)
Flashing after ignition off	GSM network is not available
Flashes after ignition on	Number of enrolled remote controls

13.6. Pre-paid SIM card balance

It is recommended not to use prepaid cards in the car alarm. If you have no other choice than prepaid cards, you can enable the CREDIT instruction by the following sequence:

MASTER CREDIT uuu..u xx yyy zz

where: uuu...u is the provider's code to obtain the balance

xx is the time period (in days) for regular checking

yyy is the threshold level below which the balance is reported to the user (TEL1)

zz is the position of the first digit of the balance in the reply SMS from the provider

- After this sequence has been sent once, the car alarm will check the balance automatically every xx days and if the balance is lower than yyy the user will be notified (TEL1)
- If the CREDIT instruction is enabled in the above way, the user can also obtain the current balance by the instruction CREDIT
- To disable the automatic balance checking set the time period "xx" to 00.

13.7. Roaming

If you travel abroad and your SIM card supports roaming, the car alarm will work there too.

13.8. Reset GSM

If you need to disconnect and then reconnect the GSM module to the GSM network, then use the command "MASTER RESET GSM".

This does not affect any settings and is typically used for GPRS activation or charging up credit. This command always requires the Master code.

13.9. Service instruction

The DINFO instruction allows you to obtain current settings, information about the quality of the GSM signal, the registration code for GSMLink devices and some other parameters. This command always requires the Master code.

*Example of instruction: **MASTER DINFO***

Example of response: Car alarm reports: CA-1803A, SN:123456, SV:01, LV:03, RK:ABCDE-12345-FG67, R:01, GSM:25, GPS:5, Time:3.2.06 11:35

CA-1803A	car alarm version
SN:123456	identification number of the product
SV:01	software version
LV:03	language version
RK: ABCDE-12345-FG67	registration code for GSMLink
R:01	current Reset mode of the device
GSM:25	instant quality of GSM signal (ranging from 0 to 32 (best))
GPS:5	number of visible satellites (0-16)

14. AUX output

AUX output can be set to one of the following modes.

External sensor power supply – if set to this mode, the output switches to +12V when the car alarm is armed. Current limit is 30mA.

AUX bus – this mode allows you to connect up to four CR-11A modules to the bus. This enables you to extend car alarm functionality via the power output. There are two outputs available: A and B. They can be operated by pressing two buttons together on the key fob RC-8x (see instructions to CR-11A), or using SMS instructions. This allows you to operate independent heating, refrigerators, flashing lights etc.). The car must not be immobilized by use of this module, because the output reacts to incoming SMS instructions in every state of the car alarm, in particular, while the car is on the run, thus possibly not under the user's control which would put persons in the vicinity of the car into danger.

Instruction	Status
AUXA (B)	Relay switches on for 1 second
AUXA ON (OFF)	ON - Switch on permanently*
AUXB ON (OFF)	OFF – Switch off permanently*
AUXA xxM in xxxS	xxM – numeric value of requested duration of the relay to be switched on, in minutes
AUXB xxM in xxxS	xxxS – as above, in seconds

Example of an instruction to switch B relay on for 30 seconds:

AUXB 30S

* Maximum switch-on time is 60 minutes.

* If a relay (A or B) is switched on while arming the car, it will be switched off. In addition, the A relay, when switched on, will also be switched off while disarming the car.

15. The back-up battery and voltage monitoring

To handle an absence of supply voltage in the car (disconnecting the main battery, deliberate damage etc.) the car alarm is equipped with a BB-02 backup battery. The battery supplies the car alarm when no supply voltage is present (for 5 hours minimum). Except for the acoustic siren, the BB-02 backs-up all the functions of the car alarm. The car alarm is supplied with a small current from the BB-02. Fully charging a fully discharged battery requires 5 days. In the case of a supply voltage outage, the BB-02 starts to generate a voltage either for the outage duration or until it is completely discharged. While testing it or being handled, it is possible to protect the backup battery from being completely discharged by briefly shorting the BB-02's terminals (the BB-02 has to be disconnected from the power supply). This causes disconnection of the electronics inside the back-up battery. In the case of switch-over to BB-02 operation (after a voltage drop under 8.5V or after complete disconnection of the battery), an SMS will be sent with

GSM car alarm CA-1803BT „Athos“

information about backup battery operation. An SMS will also be sent after the recovery of the main power supply voltage (at least 10 minutes).

16. Emergency RESET

In the case of an emergency, when no installation MASTER code is available, it is possible to perform an emergency RESET of the car alarm even without the code. Such a reset causes the car alarm to be set to factory defaults, including access codes (stated in the manual). Caution: all pre-programmed numbers, Locator parameters, DIP and SET parameters will be deleted. You perform an emergency reset as follows: Turn the power supply (including back-up battery, if any) off. Pull the SIM card out of the car alarm and insert it into a phone, enter "RESET" as a name into the SIM card's phone directory, and enter "0" for the corresponding phone number. Insert the SIM card back into the car alarm and turn the power supply on. The reset is indicated by 4 beeps.

Please contact us by phoning +420 483 559 987 or +420 606 652 997. You can also e-mail us your suggestions to improve our services and products to auto@jablotron.cz.

17. Specification

Power supply	12/24V DC (8-32V)
Stand-by consumption	max. 20 mA
Max. consumption (during GSM communication)	1 A
GSM band	E-GSM / GPRS 900/1800MHz
Transmitted power	2 W for GSM900, 1 W for GSM1800
Vf frequency	868.5MHz
Operational temperature	-20°C to +70°C
Output SIR	+12V (24V), max. load 1.3A
Immobilization	8A permanently, 12A intermittently
Central locking outputs	max. 200mA, to GND pulses 0.5s, 4s or 60s (optional)
Complies with	ECE Regulation No. 97.00
Can be operated according to	ERC/DEC98(20,21), ERC REC 70-03
Safety	EN 60950-1
EMC	EN 55022, EN 50130-4
Radio interference	ETSI EN 301 419-1, EN 301 511, ETSI EN 300 220 ETSI EN 300 328

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JABLOTRON ALARMS a.s. hereby declares that the CA-1803BT is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC and 1995/56/EC. The original of the conformity assessment can be found at www.jablotron.com, Technical Support section



Note: Although this product does not contain any harmful materials we suggest you return the product to the dealer or directly to the producer after use.

JABLOTRON
CREATING ALARMS

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