

E27 97RA-01*1027*00



WARNING: Carefully read following instructions and technical specifications in this manual before installation. The system install and use in agreement with this manual only. The system is assigned for installation to all vehicles with 12V power supply. The system has to be connected on 12V and to ground. Producer neither seller of the system are not responsible for damages caused by incorrect installation, using or operating of this product different to install or user's manual. Unprofessional operation to the system or modification of the system can damage system or electrical system of vehicle and cause warranty loss. For correct work of this system we commend installation in the professional service. The bypass module is necessary to use in vehicles, that have factory immobilizer for remote start. Don't cut a loop W1 in control unit of car alarm when the system is installed to vehicle with manual gear.

SYSTEM DESCRIPTION

KEETEC TS 8000 is two-way car alarm for vehicles with 12 V power supply. The system is possible to connect on vehicle CAN BUS link by CAN BUS module (M CAN). If car alarm is connected on CAN BUS of vehicle, then the system is possible to control by original transmitter and LCD transmitter works like a pager. If car alarm is connected on CAN BUS link, then door contacts, hood and trunk is not necessary to connect (not all vehicles). The car alarm allows remote start of engine and is advisable for installation to all type of vehicle (gas, diesel, TURBO engine, LPG engine). Duration and start time of the remote start is possible to set up. The system has relay outputs for central lock connection and control, 2x engine-cut output, foot-brake sensing for doors lock at turn ON ignition, sequential output for optical alerting and 2x AUX time adjustable outputs.

PACKING

- control unit • 2-stage shock sensor • antenna • LCD transmitter with pager + case • switch pin • interior temperature sensing • siren • engine-cut relay • cable ties • RPS module • battery 1.5V AAA

I. SYSTEM INSTALLATION

Disassemble plastic cover of car dashboard. Find wires for car alarm connecting. Use a digital multimeter for function test of wires in the vehicle as well as if you know the function of wire. After wires designation disconnect accumulator of vehicle and connect cable harness of the car alarm to wires need for correct functionality according to attached schemata. Solder up all wiring and isolate. After finish of the car alarm installation connect accumulator of vehicle and plug-in a fuse to fuse cover of the car alarm. Checkout correct functionality of the car alarm as well as electrical installation of vehicle (ignition, direct indicators, ...). Fit plastic cover of car dashboard.

Control unit, RPS module and antenna placement

Place the control unit inside of dashboard. Stick antenna and RPS module on front window of vehicle.

Attention: Outputs of the control unit have (without output on direct indicators and central) maximum allowable current loading 300mA. For bigger current loading use additional feature (R1215, IMO 15). Direct indicators can be loaded maximum on 2x5A.

CONNECTOR CN1 (6-PIN) - INPUTS AND OUTPUTS CONNECTOR

1. White (+) Starter (output wire)

Connect this wire to the starter wire in the vehicle (50).

2. Black (-) Ground (input wire)

Connect this wire to a clean, paint-free sheet metal location (driver kick panel).

3. Blue (+) Ignition 1 (output/input wire)

Input/output wire for ignition sensing INPUT for ignition sensing /wire no. 15 in car/ and OUTPUT when the remote start is activated.

4. Green (+) Ignition 3 (output wire)

Output for ACC / this output alarm is activated 1 min after remote start.

5. Red (+) Power supply +12V (input wire)

Must be connected to a high current source. Since the factory supplies (+)12V to the key switch. That is used to operate the motor, it is recommended that these wire be connected there

6. Yellow (+) Ignition 2 (output wire)

Output for some car witch need 2 ig /15/

This wire is output only (dont start the alarm after connection, when the caralarm is activated). During remote start is on this wire +12V.

Attention: At any vehicle types can become a short interruption or stop of engine run at turn ignition off in reservation mode. In this case is necessary to change yellow and blue wires connection.

CONNECTOR CN2 (5-PIN) - OUTPUTS CONNECTOR

1. White (+) Direction indicators (output wire)

Connect to direction indicators wire (+).

2. White (+) Direction indicators (output wire)

Connect to direction indicators wire (+).

3. Orange (+/-) Trunk open (adjustable output wire)

This output is used to trunk unlock. If you change to (-) jumper 3 of the control box, orange wire will output (-). Default setting is (+).

Additional Ignition output: If you change to ON 1-3 of the program menu, orange wire will output at the remote start.

4. Brown (+) Siren (output wire)

Connect this wire to the (+)wire of the siren.

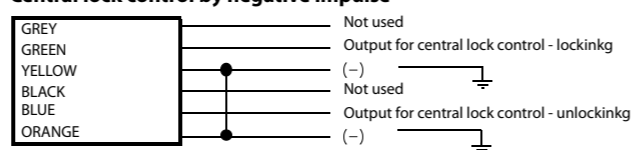
5. Green (-) Bypass (output wire)

This come in one second before ignition on and continues until one second after ignition off. (Use the immobilizer bypass module or LPG relay.)

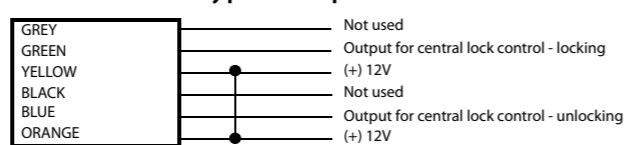
CONNECTOR CN3 (6-PIN) - CENTRAL LOCK CONNECTION

The central lock connects according to these wire diagrams depends on central lock type of vehicle.

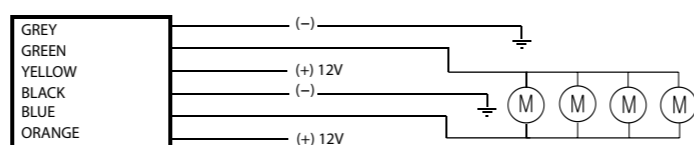
Central lock control by negative impulse



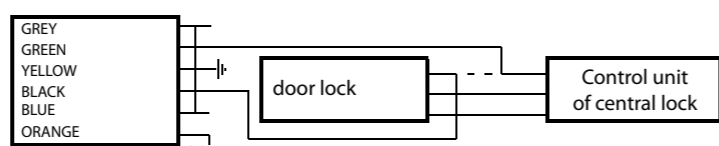
Central lock control by positive impulse



Direct connection to actuators of central lock



Pneumatic central lock connection



CONNECTOR CN4 (8-PIN) - CAN BUS MODULE CONNECTION M CAN

M CAN module is assigned for vehicles with CAN BUS link, where get available data that convert on analogue outputs for correct functionality. The module M CAN obtains the informations about opened doors, hood, trunk, and turning ignition ON. Using by this module the system is possible to control by original remote control of vehicle. The LCD transmitter is used as pager in this case.

Notice: If you don't desire to control the system by original remote control, cut blue and white wire of M CAN module.

CONNECTOR CN5 (12-PIN) - INPUTS AND OUTPUTS CONNECTOR

1. White (-250mA) Engine-cut output 1 (optional)

Connect on engine-cut circuit by added relay. This wire supplies a (-)250mA ground as long as the system is armed. But kill out is not outputted at the remote starter.

And this output ceases as soon as the system is disarmed

Attention: Never interrupt any wire other than the starter wire.

Notice: This output can be used for connection of additional modules (ex. power window closing). In this case use 1 Amp diode.

2. Black (-250mA) Dome light (output wire)

Connect this wire to the optional dome light supervision relay. This output activates the dome light on 30 sec at disarm. When turned ON of 4-5, dome light is changed to armed output, dome light output is changed to always output during arming.

Attention: This output is only intended to drive a relay. It cannot be connected directly to the domelight circuit, as the output cannot support the current draw of one or more bulbs.

3. Brown (-250mA) AUX1 (output wire)

Auxiliary output AUX1 is activated by transmitter. The output time is possible change in 3-5 of the program menu.

4. Green (-) Trunk open sensing (input wire)

This input will respond to a negative input with an instant trigger. Also this wire connect to trunk pin switch.

5. Grey (-) Hood open sensing (input wire)

This wire must be connected to hood pin switch. This input will disable or shut down the remote start when the hood is opened. It will also trigger the security system if the hood is opened while the system is armed. This wire can be used to (-) Brake sensing.

6. Blue (-/+) Doors open sensing (input wire)

Connect to a wire showing ground when any door is opened. In any vehicles is necessary to use individual door trigger by 1A diode.

Polarity change of sensing: The input polarity is possible change by jumper 2 in control unit and a wire to connect where is +12V at opened doors (ex. Ford). The input is adjustable to negative pulse sensing.

7. Red (+) Alternator sensing (input wire)

Connect to the Lamp terminal of the generator This wire must be inputted (+) when engine of the vehicle is starting (on wire where is less then 5V and power supply 9-14V at turning ignition ON). Don't connect this wire in case noise mode or tach pulse sensing.

8. Yellow (impulse) Tach pulse sensing (input wire)

This wire connect to tachometer sensing wire or ignition coil (-) wire and so on. Therefore connect to wire that pulse is outputted when engine is operated. And this wire don't connect in case noise mode or alternator sensing

9. Light-blue (-250mA) AUX2 (input wire)

Auxiliary output AUX2 is activated by transmitter. The output time is possible change in 3-6 of the program menu..

10. Pink (-250 mA) Sequential output wire

Connect to warning light switch (impulse wire) for optical alarm.

11. Violet (+ / -) Glow plug sensing for diesel (input wire)

In diesel vehicles it is necessary to interface with the wire that turns on the "wait to start light" in the dashboard. This wire illuminates the bulb until the vehicle's glow plugs are properly heated. When the light goes out the vehicle can be started. This wire is always available at the connector leading to the bulb in the dashboard. It can also be found at the engine control module (ECM) in many vehicles.

Polarity change of sensing: The input polarity is possible change by jumper 1 in control unit and a wire to connect where is (-) at glow plug. The input is adjustable on positive pulse sensing.

12. Orange (+) Foot-brake sensing (input wire)

This wire must be connected to the vehicle's brake light wire. This is wire that shows (+) 12V when the brake pedal is pressed. The remote start will be disabled or shut down any time the brake pedal is pressed. (-)Brake sensing can be used instead of #5 (-)Hood sensing wire of the CN 5.

CONNECTOR CN6 (3-PIN) SHOCK SENSOR CONNECTION

Inputs shorter than 0.6 seconds will trigger the warning (1st stage), while inputs longer than 0.6 seconds will trigger full alarm during 30 sec (2nd stage).

CONNECTOR CN7 (4-PIN) - RPS, DIGITAL CONTROL MODULE

The system is possible arm/disarm by RPS module. The system will disarm by setting of 4-digits secure code. If the secure code is set-up incorrect 5x, the RPS will disable. module is arm/disarm By the RPS module is possible ON/OFF valet mode and to call a driver.

RPS module operating:

1) System activation by RPS module

1. Press the switch one time in the standby mode, LED blinks one time and the display segment is rotated fast. (This function is maintained for 30 seconds). If the button is pressed to 30 sec., the activation is canceled.
2. Knock the sensor more than 5 times after get off the car within 30 seconds and close the all doors, then door will be locked

2) System deactivation by RPS module

1. Knock the sensor more than 5 times at the standby mode. (The call function is operated one time at the first knock.)
2. During the numbers automatically count with delay each 2 seconds from 0 to 9, knock the sensor at the registered CODE. Then selected number blinks 5 times and it automatically repeat next number from "0".
3. Set-up all 4 digits of code according to step 2. If the code is correct, the car alarm will disarm.

Attention: : If you input a wrong code 5 times within one hour, "U" is marked and all functions are stopped for one hour. If you press the button, this function is canceled.

3) Secret code setting

1. Press the button 20 times at standby mode and then LED blinks 2 times.
2. Knock the sensor more than 5 times within 30 seconds. During the numbers automatically count with delay each 2 seconds from 0 to 9, knock the sensor at a number you want. Then selected number blinks 5 times and it automatically repeat next number from "0". And if you input consecutively all 4 numbers as upper STEP 2, a new code is inputted.

If you want to change the secret CODE, you have to just repeat STEP 1 -2.

Attention: User's secret code must be registered by user. (Factory setting code is "1234").

RPS module installation:

1. Connect 4 pin connector to main control box.
2. Installation location: First of all, stick the sticker on the inside the windshield of the wheel and stick the control module on that sticker.

CONNECTOR CN8 (5-PIN) - ANTENNA CONNECTION

The best location for the receiver/antenna is centered on left of the front windshield. The antenna should be mounted horizontally.

Attention: Metallic window tint can also affect range, so this should be a consideration when determining the mounting location.

Antenna installation:

1. Clean the mounting area with a quality glass cleaner or alcohol to remove any dirt or residue.
2. Plug the 5 pin cable into the receiver/antenna.
3. Mount the receiver/antenna using the supplied double-sided tape.
4. Plug the receiver/antenna cable into the main control unit.

CONNECTOR CN9 (2-PIN) - ADDITIONAL VALET BUTTON (optional)

The Valet button should be accessible from the driver's seat. It plug in to the connector on the side of the main control unit. (Additional valet button is not included in pack, valet button is in RPS module).

CONNECTOR CN10 (2-PIN) - LED CONNECTION (optional)

Mountain the LED indicator in a visible location such as dash or console. Plug the LED into the control module. LED is not included in pack (LED is in RPS module).

CONNECTOR CN11 (3-PIN) - ADDITIONAL SENSOR CONNECTION

Input for additional sensor connection - ultrasonic (UL 100, T ULT), microwave (MWS 2), tilt (TIL 200). (Additional sensors are not included in pack).

II. SWITCH AND JUMPER SETTINGS IN CONTROL UNIT

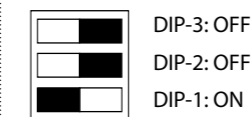
1) SET UP A START SENSING

Start sensing is fixed up alternator signal input in the default setting. **(A) Alternator sensing:** DIP 1 = OFF, DIP 2 = OFF, DIP 3 = OFF = alternator Red LED indicator signalling. This is used when you want lengthen operation time of the start motor in case you install alternator sensing method.(Turn to the right if you want lengthen operation time.)



(B) Noise sensing: DIP 1 = ON, DIP 2 = OFF, DIP 3 = OFF = noise

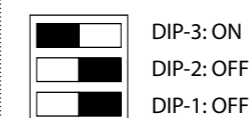
Red LED indicator signalling.



Vehicles that noise is sensed is do not use noise sensing mode when you turn to "ON" IG key with engine is not started. Noise check method is that you have to see RED LED of main control PCB. This LED must be become "ON" only when engine is started. If LED is become "ON" when engine is not started, you must use another method(alternator, tach pulse sensing).

(C) Tach pulse sensing: DIP 1 = OFF, DIP 2 = OFF, DIP 3 = ON = tach signal

Yellow LED indicator signalling..

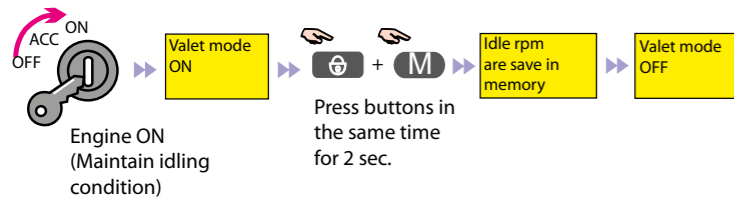


The sensing of engine run by Tach signal needs to set-up idle RPM (RPM setting for remote start). RPM setting: Start-up vehicle, set-up valet mode, press buttons (M) + (M) in the same time over 2 sec., idle RPM will save to control unit, leave valet mode.

2) GEAR TYPE SETTINGS

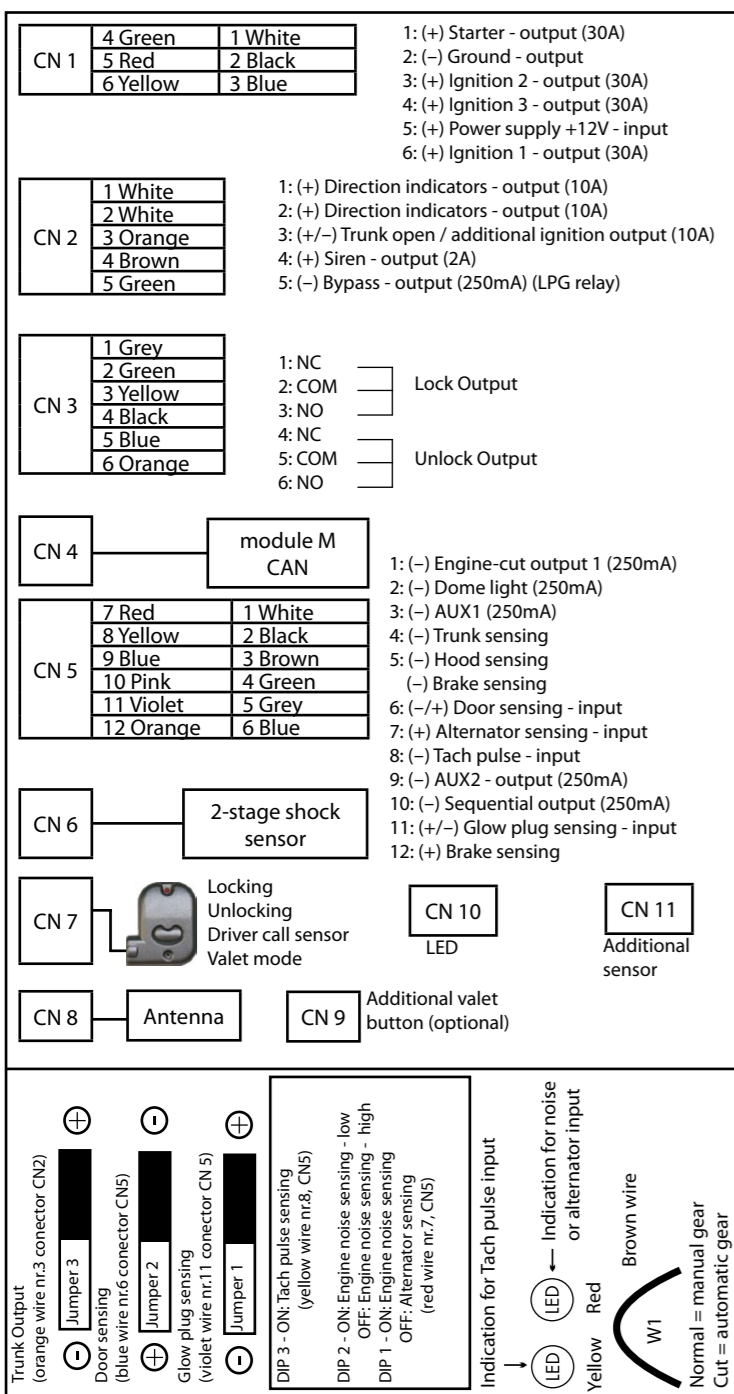
If the vehicle has a automatic gear then cut brown wire W1 in control unit. If the wire is cutted then is possible the remote start anywhere. If the wire is not cutted is necessary the reservation mode the set-up before remote start. If the vehicle has manual gear the wire must stay uninterrupted.

III. RPM SETTING FOR REMOTE START



The engine must have idle RPM at setting (600-700RPM). RPM setting is necessary if the information about engine ON for remote start will obtain from Tach signal (yellow wire, connector CN5).

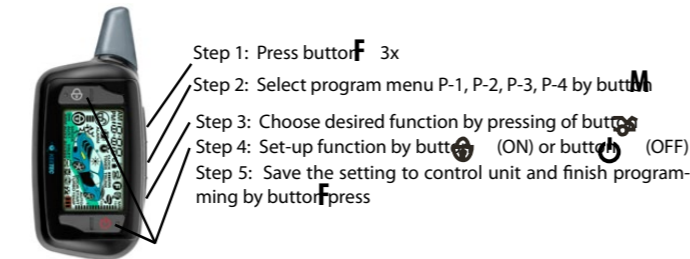
IV. WIRE DIAGRAM



V. SYSTEM FUNCTIONS PROGRAMMING

The programming for 2-way and 1-way transmitter is different During programming, the car alarm must be OFF. Proceed for functions setting in program table in next steps for 2-way and 1-way transmitter differently:

LCD transmitter with 2-way communication



Transmitter with 1-way communication

One-way transmitter can be change only in P-1 a P-2 of the program menu. Program menu step is marked by chirp sound (ex: Menu 1-1 = 1x ♪, 1-2 = 2x ♪, ..)



PROGRAM TABLE

Program menu	LCD display	P-1 Remote start	Factory default	Optional
1-1	tur	Auto turbo protection	OFF	ON
1-2	StL	Door re-lock after remote start	OFF	ON
1-3	ACC	Trunk output change	OFF	ON
1-4	LPG	LPG reservation mode	OFF	ON
1-5	Atr	Auto reservation mode	ON	OFF
1-6	Het	Glow plug sensing at remote start	OFF	ON
1-7	tEm	Cold & Hot start	OFF	ON
1-8	IGt	Output "ignition 2" at the disarm	ON	OFF

Program menu	LCD display	P-2 Basic function	Factory default	Optional
2-1	CCH	Digital code valet mode	OFF	ON
2-2	IGL	Ignition lock/unlock	OFF	ON
2-3	PSA	Passive arming	OFF	ON
2-4	PSL	Passive lock	OFF	ON
2-5	LdA	Last door arming	OFF	ON
2-6	CHP	Chirp sound	ON	OFF
2-7	dUP	Double unlocking pulse	OFF	ON
2-8	dLP	Double locking impulse	OFF	ON

Program menu	LCD display	P-3 Timing settings	Factory default	Optional
3-1	Stt	Run time for remote start	2 10 15 25 35 45 (Minutes)	
3-2	Std	Remote start delay	4 8 12 15 18 20 (Sek.)	
3-3	Sto	Start impulse time	0.4 0.5 0.7 1.0 1.4 2.0 (Sec.)	
3-4	CSt	Cold start temperature settings	-4 -8 -12 -16 -20 -24 (°C)	
3-5	Au1	Aux 1 output (LCH=Continue)	1 5 10 20 40 LCH (Sec.)	
3-6	Au2	Aux 2 output (LCH=Continue)	1 5 10 20 40 LCH (Sec.)	
3-7	ttt	Turbo time setting	1 2 3 5 8 10 (Minutes)	
3-8	Amd	Arm delay time setting	5 10 15 25 35 45 (Sec.)	

Program menu	LCD display	P-4 Advanced functions	Factory default	Optional
4-1	SPo	Siren pulse output	OFF	ON
4-2	AEd	Automatic engine disable	OFF	ON
4-3	Lot	Unlock pulse	0,5 sec.	3,5 sec.
4-4	BPs	Arm reminder	OFF	ON
4-5	dom	Dome light is changed to armed output	OFF	ON
4-6	SAC	SMART access mode ON/OFF	OFF	ON
4-7	CAS	Locking pulse	As unlock	20 sec.
4-8	AcD	Arm cancel mode at door open	OFF	ON

PROGRAM MENU (P-1) - REMOTE START

- 1-1 Auto turbo protection**
If this function is ON, the function maintains engine ON after the door is locked. The turbo time is possible to change at program menu 3-7.
- 1-2 Door re-Lock after remote start** (installation only)
If this function is ON, The car alarm will lock doors automatically after remote start ending. This function is necessary to activate at vehicles, where the central lock will unlock after turn ignition OFF.
- 1-3 Trunk output change** (installation only)
If this function is ON, (+) will always output at the remote start (orange wire nr.3, connector CN2).
- 1-4 LPG reservation mode** (optional)
If this function is ON, the engine will turn OFF automatically within 30 sec., if LPG in gas line is empty when the engine turn OFF.

(This function is operated when you install LPG gas valve ON/OFF relay).

- 1-5 Auto reservation mode**
If this function is ON, the reservation mode for remote start run always after turn ignition OFF (The engine stays ON till last door closing - max. 2 min.). If this function is OFF, the reservation mode is possible a manual activation (see user manual - reservation mode for vehicle with manual gear).
- 1-6 Glow plug sensing at remote start** (installation only)
If this function is ON, starter motor is operated after glow plug is OFF at the remote start. For this function is necessary to connect violet wire nr. 11 (connector CN5).
- 1-7 Cold & Hot start**
If this function is ON, engine automatically start if temperature become under -20° C or more then +50° C at the arm mode. The cold start temperature is possible set-up from -4 to -24° C (program menu 3-4). The engine ON duration is depend of function setting 3-1. This function is automatically OFF after total 8x operation.
- 1-8 Output "Ignition 2" at the disarm** (installation only)
If this function is OFF, output "Ignition 2" is OFF at the disarm during remote start.

PROGRAM MENU (P-2) - BASIC FUNCTIONS

- 2-1 Digital code valet mode**
If this function is OFF, the valet mode is operated to ON/OFF if you press the valet button for 5 seconds at the ignition key ON. If this function is ON, set the security code at valet mode activation.
- Digital code valet mode activation:**
1. Press the switch for 5 seconds when the digital control module is standby mode, and then LED blinks one time and the display segment is rotated fast. (This function is maintained for 30 seconds.)
2. Knock the sensor more than 5 times after get off the car within 30 seconds, then the digital code start count. (If you press the switch again within 30 seconds LED blinks 2 times and digital valet function is canceled.)
3. During the numbers automatically count with delay each 2 seconds from 0 to 9, knock the sensor at the registered CODE. Then selected number blinks 5 times and it automatically repeat next number from "0".
4. Select the remainder 3 CODES as upper STEP 3. If you select all CODES in order, valet mode is ON. If you want to cancel the valet mode, press the valet button for 5 seconds at the ignition key ON.

2-2 Ignition lock/unlock

When turned ON, the doors will be locked when step on brake after the ignition is turned ON. The doors will be unlocked when the ignition is turned OFF. Getting on the vehicle during remote start: Door is locked when ignition key ON and then step on the brake.

2-3 Passive arming

When turned ON, the system will arm automatically after 30seconds if the ignition key is OFF and door open/close.

2-4 Passive lock

When turned ON: When the system is arm by passive arming, door lock will be automatically operated.

2-5 Last door arming

When turned ON, if all door is closed at the disarm, door lock will be operated with arm after 30 seconds.

2-6 Chirp sound

In the default setting, siren of the vehicle will output chirp sound when you operate transmitter.

2-7 Double unlocking pulse (installation only)

If this function is ON, each door unlock = 2 impulses. The function is activated, when unlock impulse is setting on 0,5 sec. (program menu 4-3).

2-8 Double locking pulse (installation only)

If this function is ON, each door lock = 2 impulses. The function is activated, when unlock impulse is setting on 0,5 sec. (program menu 4-3). If locking pulse is setting in 20 sec., the first impulse is 0,5 sec and the second is 20 sec.

PROGRAM MENU (P-3) - TIMING SETTINGS

- 3-1 Run time for remote start**
This function adjusts run time of the vehicle at remote start, cold start and time reservation time.
- 3-2 Remote start delay**
This function adjusts delay at remote start, delay time from turn ignition ON to engine start.
- 3-3 Start impulse time** (installation only)
Time setting of start impulse (at remote start by tach or noise sensing).
- 3-4 Cold start temperature settings**
Minimal temperature setting for start of Cold & Hot program. The function Cold & Hot start must be ON (1-7).
- 3-5 Aux 1 output** (installation only)
Duration of Aux1 output setting. If CLH is adjusted, Aux1 output is constant (the output will be activated till disarm by transmitter).
- 3-6 Aux 2 output** (installation only)
uration of Aux1 output setting. If CLH is adjusted, Aux1 output is constant (the output will be activated till disarm by transmitter).

3-7 Turbo time setting

Turbo time setting for auto turbo timer programm (1-1). Default setting is 2 min.

3-8 Arm delay time setting

Arm delay time delay of sensing for doors, trunk, hood and ignition. Shock sensor will work 20 sec. after delay time.

PROGRAM MENU (P-4) - ADVANCED FUNCTIONS

4-1 Siren pulse output

In the default setting, siren will be continually outputted for 30 seconds when alarm is operated. When turned ON : Siren will be outputted to pulse

4-2 Automatic pulse disable

When turned ON, starter kill will be automatically outputted 30 seconds after ignition OFF with LED blink slowly.

4-3 Unlock pulse (installation only)

If this function is ON, unlocking impulse length is 3,5s. If this function is OFF, unlocking impulse length is 0,5s.

4-4 Arm reminder

If this function is ON, the car alarm will sound 2x, after each open and close door over 10 sec., it reminds that is OFF. If the function 2-3 or 2-5 is ON, The reminder doesn't work.

4-5 Dome light is changed to armed output (installation only)

If this function is ON and car alarm is armed, output for dome light is turned ON constantly (-) (black wire nr.2, connector CN5).

4-6 SMART access mode ON/OFF

When turned ON, LCD display ACCESS icon. And the main control unit sense the transmitter when transmitter is near by vehicle, the system will be automatically disarm (Unlock). If the transmitter is far from vehicle, the system will be arm. If you use this function, the transmitter battery life will be short.

4-7 Locking pulse

If this function is ON, locking impulse length is 20 sec. If the function is OFF, locking impulse is the same as unlocking impulse.

4-8 Arm cancel mode at door open

When turned ON, if the door is open, arm is not operated by transmitter. In this case, you can operate arm after closing the door.

VI. TRANSMITTERS LEARNING



Set-up a valet mode. Open the vehicle door and turn ignition ON/OFF 8x or press the service button 8x. The system will delete all learned transmitters automatically. Learn the transmitter by button press of this transmitter. The system enables to learn max.4 transmitters (max. 2 LCD transmitters). The car alarm allows to add a new transmitter during alarm (if you loss or damage transmitter).

VII. VALET MODE (EMERGENCY DEACTIVATION)

Valet mode setting: Turn ignition ON and press button of RPS module for 5 sec. LCD transmitter sounds 1x and display shows "VALET". The system will work as central lock in this mode. The process for deactivation of valet mode is the same as for activation. LCD transmitter will sound 2x and "VALET" will disappear from display. Emergency deactivation has the same process (at loss or damage of transmitter).

VIII. SYSTEM RESET

- Control unit reset:** In valet mode, press buttons a and in the same time over 2 sec. till 30 sec. from turn ignition OFF. All settings in menu will change to default.
- Transmitter reset:** After control unit reset is necessary to reset the transmitter too. Take out battery of transmitter, press and hold button M and in the same time return the battery to the transmitter.

TECHNICAL PARAMETERS	
Power supply	12V +/- 25%
Working temperature	-30°C to 70°C
Stand-by mode	10mA
Transfer frequency	433,92 MHz
Alarm duration	30 sec