

**REMOTE ENGINE STARTER  
REMOTE ENGINE STARTER WITH ALARM**

**FOR MANUAL OR AUTOMATIC VEHICLES**

***INSTALLATION MANUAL***

# WIRING DESCRIPTION

## 6 WIRES CONNECTOR (14 GAUGE WIRE)

<b>RED</b>	12V constant wire (12V positive input) connect to a 12V constant, 30A fuse built-in
<b>RED</b>	12V constant wire (12V positive input) connect to a 12V constant, 30A fuse built-in
<b>GREEN</b>	Parking lights wire (12V positive output) connect to parking lights wire
<b>ORANGE</b>	Accessories wire (12V positive output) connect to accessory wire that controls the heater/air conditioning fan
<b>YELLOW</b>	Starter wire (12V positive output) connect to starter wire
<b>BLUE</b>	Ignition wire (12V positive output) connect to main ignition

## 6 WIRES CONNECTOR (20 GAUGE WIRE)

<b>ORANGE</b>	Non flashing L.E.D wire (negative output) <b>IMPORTANT: Do not connect this wire if Long Range Receiver with LED built-in is used.</b>
<b>RED / WHITE</b>	Horn or siren wire (3A negative output) connects to horn or siren. Require a relay if siren is used
<b>WHITE / BLACK</b>	Starter kill disable wire (500mA negative output) connect to starter kill relay
<b>WHITE / RED</b>	Lock wire (500mA negative output) See central door lock connection diagram
<b>WHITE / GREEN</b>	Unlock wire (500mA negative output) See central door lock connection diagram
<b>GREEN / BLACK</b>	<b>OUTPUT# 4:</b> 500mA negative output to be programmed as trunk opener or constant output for transponder bypass ( <b>see option #5</b> )

# WIRING DESCRIPTION

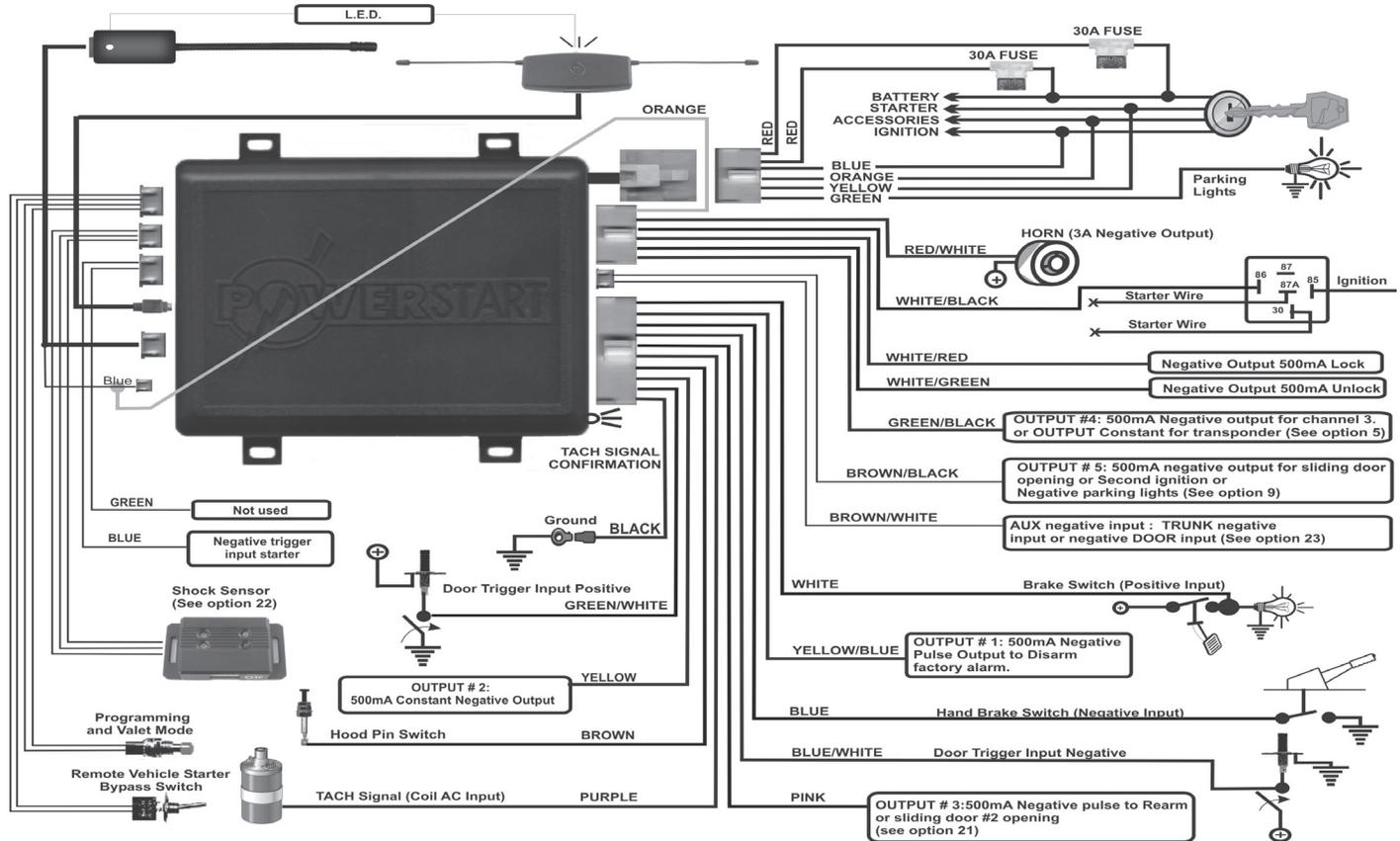
## 10 WIRES CONNECTOR (20 GAUGE WIRE)

<b>WHITE</b>	Brake wire (12V positive input) connect to the switched side of the brake pedal switch
<b>YELLOW / BLUE</b>	<b>OUTPUT #1</b> (500mA negative output) give a pulse to disarm factory alarm
<b>BLUE</b>	Hand brake wire (negative input) for vehicles with manual transmission only. Connect this wire to factory hand brake negative switch
<b>BLUE / WHITE</b>	Door trigger negative input, connect to negative door switch
<b>PINK</b>	<b>OUTPUT #3</b> (500mA negative output) give a pulse to rearm factory alarm or for sliding door opening #2 (see option 21)
<b>PURPLE</b>	TACH wire (AC input) connect to TACH signal wire (coil or injector)
<b>BROWN</b>	Hood wire. Connect to hood pin switch (supplied)
<b>YELLOW</b>	<b>OUTPUT #2</b> (500mA negative output) give a negative constant ground out when running by remote starter
<b>GREEN / WHITE</b>	Door trigger positive input, connect to positive door switch
<b>BLACK</b>	Ground wire. Connect this wire to chassis ground

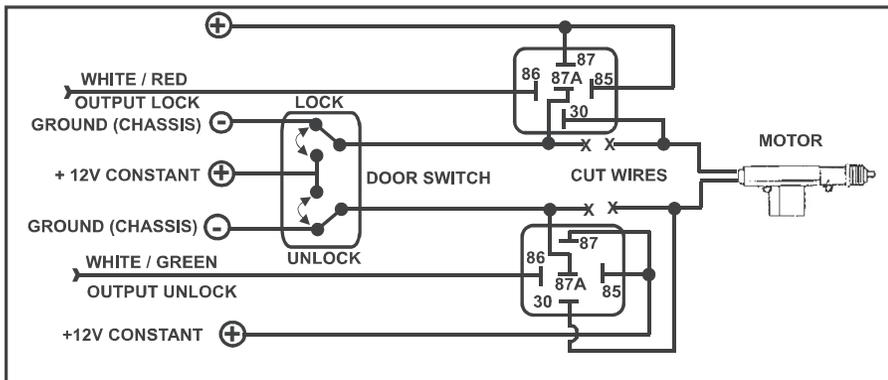
## 2 WIRES CONNECTOR ( 22 GAUGE WIRE )

<b>BROWN / BLACK</b>	<b>OUTPUT # 5:</b> 500mA negative output for: 2 <sup>nd</sup> Ignition or Sliding Door #1 or Negative Parking Lights (see option #9)
<b>BROWN / WHITE</b>	Negative input alarm trigger for trunk or Negative door input or paging transmitter, applicable for 2 way system only (see option 23)

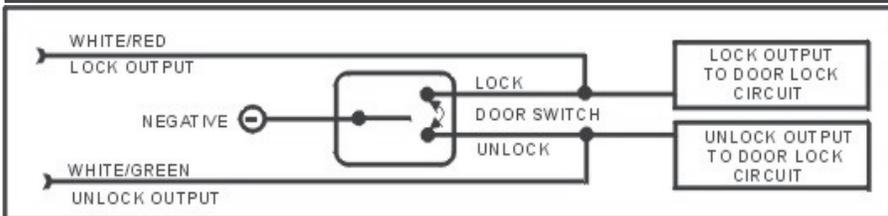
# WIRING DIAGRAM



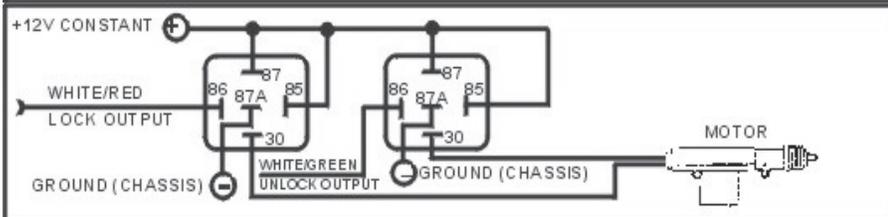
# CENTRAL DOOR LOCK CONNECTION



**DIAGRAM 1 :  
REVERSE POLARITY TYPE**



**DIAGRAM 2 :  
NEGATIVE TYPE**



**DIAGRAM 3 :  
ADDING DOOR LOCK ACTUATOR**

# PROGRAMMING

Our remote starting system **with or without security system built-in** is delivered with factory default settings. However, you can install it without touching any programming or you can modify the configuration to suit your customer's need.

**Important:** the installation must be completed before accessing programming mode.

## **Programming the system:**

1. System must be disarmed.
2. Open the hood (hood pin switch must be installed)
3. Turn the ignition to ON (engine not running).
4. Push 3 times on the valet switch within 15 seconds. You will hear 5 beeps to confirm that the system is now in programming mode.

**Note:** if the 15 seconds delay has expired, just turn the ignition OFF and repeat steps 3 and 4.

**The system has 24 options and there are 1 to 3 different possibilities to modify.**

**Step 1** Press then release valet switch to select option 1 to 25 (depend on models, see programming chart).  
Every time you press on valet switch you will hear one beep. Count the beep to reach desired option.

**Step 2** When you have reached the desired option depress brake pedal to confirm.

**Step 3** Press button ,  or  on transmitter to choose between different possibility ( to select column 1, you will hear 1 beep,  to select column 2, you will hear 2 beeps or  to select column 3, you will hear 3 beeps). Depress brake pedal again and count the beep to confirm that the feature has been changed.

**Note: if you have more than one option to modify, repeat steps 1 to 3.**

**Step 4** When finished, close hood to exit programming mode.

# PROGRAMMING CHART

OPT.	FUNCTIONS	PRESS  BUTTON TO:	PRESS  BUTTON TO:	PRESS * BUTTON TO:
1A	TACH Learning <b>See example: #3</b>	Learn		
1B	TACH fine tuning <b>See example # 4</b>	Increase	Decrease	
2	Cranking adjustment	◆ Normal	Slight increase	Increase
3	Audible Arming / Disarming	Enable	◆ Disable	
4	Running time duration	10 minutes	◆ 15 minutes	25 minutes
5	<b>OUTPUT # 4</b> can be programmed as	◆ Trunk Release	Transponder by-pass	
6	Glow plug waiting time before starting	◆ 0 second	10 seconds	20 seconds
7	NOT USED	NOT USED	NOT USED	NOT USED
8	Night timer mode	Starts engine every 2 hours	◆ Starts engine every 3hours	Starts engine every 4 hours
9	<b>OUTPUT # 5</b> is selected as	Open sliding door 1	◆ Second Ignition	Negative parking lights
10	Types of door lock Signals	◆ 0.75 second	3 seconds	Lock: 1 pulse Unlock: 2 pulses
11	Ignition door lock	◆ Disable	Enable	
12	Passive lock	Enable	◆ Disable	
13	System arming <b>See example: #1</b>	◆ Passive arming	Active arming	Active arming without safety re-arm
14	Exit sequence to program vehicle equipped with a manual transmission	You don't need to press button * of your transmitter to program exit sequence for manual transmission	◆ Have to press * button of transmitter every time you want to program exit sequence for manual transmission	

◆ Factory default setting

# PROGRAMMING CHART

OPT.	FUNCTION	PRESS  BUTTON TO:	PRESS  BUTTON TO:	PRESS * BUTTON TO:
15	Horn/Siren	◆ Horn	Siren	
16	Dome light delay (Used for vehicles with manual transmission or vehicles equipped with dome light delay)	◆ Disable	Enable	Enable & Bypass for 45 seconds when engine shut-off by transmitter.
17	Alarm duration	◆ 30 seconds	60 seconds	120 seconds
18	Automatic door locking after engine has been started	◆ Disable	Enable	
19	Factory default setting <b>See example #5</b>	Press button  to reinitialize 4 confirmation beeps will be emitted		
20	Transmitter code learning <b>See example #2</b>	Press button , 4 beeps confirmation will be emitted		
21	<b>OUTPUT # 3</b> is selected as	◆ Pulse to re-arm factory alarm	Sliding door 2 opening	
22	Shock sensor is selected as	◆ With Pre-warning	No delay, instantly	
23	AUX negative input selected as	◆ NOT USED	Negative trunk input for alarm	Negative Input alarm for doors
24	Turbo engine On/Off	◆ Disable turbo	4 minutes turbo running	6 minutes turbo running
25	Temperature mode (for 2 way LCD only)	◆ Celsius	Fahrenheit	

◆ **Factory default setting**

# PROGRAMMING OPTIONS

## **OPTION 1A: TACH LEARNING ( SEE EXAMPLE #3 )**

The factory default setting should normally adapt to most vehicles on the market. After the installation is completed, start engine with transmitter and most of the time you will have a perfect start. If the starter motor is over crank or release too fast, you must process with the TACH learning option or manual fine-tuning.

## **OPTION 1B: TACH FINE TUNING ( SEE EXAMPLE #4 )**

Occasionally with factory default setting or TACH learning feature you might not reach the exact performance. This option allows you to fine-tuning the TACH signal manually.

## **OPTION 2: CRANKING ADJUSTMENT**

You can force the starter to slightly under crank or over crank, if you expect that the vehicle needs this adjustment. It might be necessary for some older vehicles or vehicles with a diesel engine, to assure a perfect start in extremely cold weather condition.

## **OPTION 3: AUDIBLE ARMING / DISARMING**

When this option is enabled, the system will chirp every time when system arm or disarm.

## **OPTION 4: RUNNING TIME DURATION**

This option allows you to set remote start engine running time for 10, 15 or 25 minutes. When remote start, engine will run for the selected time.

# PROGRAMMING OPTIONS

## OPTION 5: OUTPUT #4 CAN BE PROGRAMMED AS :

1. Channel 3 for trunk opener
2. Constant OUTPUT to by-pass factory transponder. It works same, as OUTPUT constant except system will release negative ground output when accessory wire is turn ON.

## OPTION 6: GLOW PLUG WAITING TIME ( FOR DIESEL ENGINE )

Diesel engines need to warm up glow plugs before starting. Turn ignition key ON and count how many seconds it takes for the glow plug light to turn OFF then select the closest waiting time.

## OPTION 7: NOT USED

## OPTION 8: NIGHT TIMER MODE

The system will start engine by itself and will run for 6 minutes every 2, 3 or 4 hours for a maximum 4 times. This feature is highly appreciated when very cold nights are forecast.

## OPTION 9: OUTPUT # 5 CAN BE PROGRAMMED AS:

1. Sliding door opened: keep pressing **AUX** button for 2 seconds to open sliding door
2. Second ignition: this wire follows the timing of ignition **Blue wire 14 gauge**, relay required
3. Negative parking lights: it follows the timing of parking light **Green wire 14 gauge**.

## OPTION 10: DOOR LOCK SIGNAL TIMING

1. Lock or unlock: pulse for 0.75 second
2. Lock or unlock: pulse for 3 seconds
3. Lock or unlock: 2 pulses, the first pulse to open the driver door, the second for all passenger doors

# PROGRAMMING OPTIONS

## **OPTION 11: IGNITION LOCK**

This feature allows the system to lock automatically all doors when ignition key is ON, brake pedal is depressed. The system will unlock all doors automatically when ignition key is OFF.

## **OPTION 12: PASSIVE LOCK**

Passive lock is working only when passive arming option is enable (see option #13). This features will allows the system to lock all doors when passive arming. If this option is disabled, all doors will lock only when system is armed by transmitter.

## **OPTION 13: PASSIVE OR ACTIVE ARMING**

1. Passive arming arms the starter kill and alarm, 30 seconds after the ignition is OFF, hood and all doors are well closed.
2. Active arming arms the starter kill and alarm only via remote transmitter. If system is disarmed accidentally and doors or hood are not open within 30 seconds , the system will re-arm automatically.
3. Active arming without security re-arms will arm system only via remote transmitter . If this option is selected, the system will never re-arm if you disarm system by accident.

## **OPTION 14: FOR MANUAL TRANSMISSION VEHICLE ONLY**

You can choose with or without pressing button \* on transmitter to program an exit sequence. When without transmitter sequence is selected, you don't need to press \* button each time you want to program an exit sequence.

# PROGRAMMING OPTIONS

## **OPTION 15: VEHICLE HORN OR ADDED SIREN (OPTIONAL)**

System will give a 3A negative ground pulsed signal when alarm is triggered or panic function. When Siren option is selected, the system will give a 3A negative ground constant when alarm is triggered. We recommend using extra relay for siren, if it requires more than 3A.

## **OPTION 16: DOME LIGHT DELAY (FOR MODELS WITH ALARM OR WITH MANUAL TRANSMISSION ONLY)**

If the vehicle comes with dome light delay features, it is important to enable this option. If not, you have to wait until the dome light shut-off completely to arm the system. Otherwise the system will beep 5 times every time when you try to arm the system.

***Note: When dome light delay mode is selected, the parking lights will flash 3 times when system arms.***

## **OPTION 17: ALARM DURATION**

You can choose between 30, 60 or 120 seconds for alarm duration when alarm is triggered.

## **OPTION 18: AUTOMATIC DOOR LOCKING**

Automatic locking will lock all doors, 4 seconds after the engine is started via the transmitter and 4 seconds after engine shut off. This features is useful with vehicles, which factory door unlock when ignition key is OFF such as Cavalier, Grand Am or door unlock when disarm factory alarm before remote starting.

## **OPTION 19: FACTORY DEFAULT SETTING**

This option will allows you to reinitialize all system back to factory default settings in case of confusion or when you reinstall the system in another vehicle or you don't want to keep the old setting.

# PROGRAMMING OPTIONS

## **OPTION 20: TRANSMITTER CODE LEARNING**

To remove, add or learn the new transmitter into your system. You can program up to 4 different transmitters.

## **OPTION 21: OUTPUT #3 CAN BE PROGRAMMED AS:**

A negative 500mA output pulse to rear arm factory alarm when remote starting shut-off or to open slide door # 2.

## **OPTION 22: SHOCK SENSOR INPUT (FOR MODELS WITH SECURITY SYSTEM ONLY)**

The shock sensor can be selected with or without pre-warning. With pre-warning, when vehicle detects an impact, car horn will beeps 3 times then waiting. If vehicle detect second impact within 10 seconds, system will trigger the alarm.

Without pre-warning, when vehicle detect an impact, alarm will trigger instantly.

## **OPTION 23: AUX. NEGATIVE INPUT CAN BE SELECTED AS:**

1. Negative input to trigger alarm when trunk is opened
2. Negative input for doors (when this option is selected, system will ignore Blue/White and Green/White wire) Use this option in case Blue/White wire cannot detect solid ground when door is opened.

## **OPTION 24: TURBO MODE**

Some TURBO vehicles require that engine keep running when ignition key is OFF to slow down the idle. You can select between 4 or 6 minutes running time.

## **OPTION 25: TEMPERATURE MODE CAN BE SELECTED AS (for 2 way LCD only)**

1. CELSIUS
2. FAHRENHEIT

# PROGRAMMING EXAMPLES

## EXAMPLE 1, OPTION 13: CHANGE FROM PASSIVE ARMING TO ACTIVE ARMING

Option 13, default setting is passive arming. System will arm automatically after ignition key is OFF and the last door is closed. You want to change to active arming.

1. Access programming mode (see programming procedures)
2. Press then release valet switch 13 times and count 13 beeps.
3. Depress brake pedal to confirm, you should hear 1, 2 or 3 beeps to confirm which option is currently programmed on the system

**Note: If you hear 1 beep, it means current option is passive arming.  
If you hear 2 beeps, it means current option is active arming.  
If you hear 3 beeps, it means current option is active arming without safety rearm.**

4. Press on transmitter to change option:
  - Button  for passive arming, you will hear 1 beep.
  - Button  for active arming, you will hear 2 beeps.
  - Button  for active arming without safety rearm, you will hear 3 beeps.
5. Close hood to exit programming mode.

# PROGRAMMING EXAMPLES

## EXAMPLE 2, OPTION 20: TRANSMITTER CODE LEARNING

The transmitter supplied is already programmed to the system. This option allows you to add more transmitters to your system.

1. Access programming mode (see programming procedure).
2. Press then release valet switch 20 times and count 20 beeps.
3. Depress brake pedal to confirm.
4. Press button  on the transmitter 1 time, you will hear 5 beeps. The new transmitter code is learned. If you press on the same transmitter 4 times, all another previously stored transmitters code in the system will be erased.
5. Close hood to exit programming mode.

## EXAMPLE 3, OPTION 1A: TACH LEARNING

The factory default setting should normally operate with most vehicles on the market. Note that some vehicles equipped with multi coil system have a very low TACH signal. In that case, the TACH learning feature will allow the system to adjust itself to the TACH signal of the vehicle.

***Important note: engine must be warm and at idle speed (approximately 800 rpm) before proceeding with TACH learning, otherwise preheat engine for at least 10 minutes before processing.***

1. Access programming mode (see programming procedures).
2. Press then release valet switch 1 time and count 1 beep.
3. Depress brake pedal to confirm, you should hear 3 beeps, (factory default setting)

## PROGRAMMING EXAMPLES

4. Start the engine and wait for the lowest idle.
5. Press button  on the transmitter, you should hear 1 beep, TACH signal has been learned.
6. Close hood to exit programming mode.

### **EXAMPLE 4, OPTION 1B: FINE TUNING THE TACH SIGNAL**

Even with the factory TACH default setting or TACH learning features you can not reach the exact setting; *example: idle is too high*. This option will allow you to fine tune the TACH signal manually, make sure the engine is *not running*.

1. Access programming mode (see programming procedures)
2. Press then release valet switch 1 time and count 1 beep.
3. Depress brake pedal, you should hear 3 beeps (factory default setting) You must count the number of beeps, minimum 1 beep and maximum 9 beeps. If 9 beeps is selected the TACH signal will be sensed as DC voltage rather than AC signal. If you miss the number of beeps, depress brake pedal again to count the beeps.

**Note:** At this step, you must carefully count the number of beeps when you depress brake pedal, in order to increase or decrease TACH signal level. Decrease when TACH signal is weak and increase when TACH signal is high.

**Example:** *you start the engine via the transmitter, if the starter motor is over cranking decrease the signal level. If the starter motor release too fast, increase the signal level.*

4. Press button  on the transmitter to increase signal level or press button  to decrease signal level.

## PROGRAMMING EXAMPLES

5. Depress brake pedal again to confirm the beeps, the number of beeps should be more or less than the number counted at step #3, it confirms that you have changed the setting.
6. Close hood to exit programming mode.
7. Start the engine via the transmitter to try the new setting. Still no good, repeat step 1 to 6 if necessary.

### **EXAMPLE 5, OPTION 19: REINITIALIZED FACTORY DEFAULT SETTING**

Option 19 allows to reset the system back to factory default settings in case of confusion or if you want to install the system in another vehicle and you don't want to keep the old settings.

1. Access programming mode (see programming procedures)
2. Press then release valet switch 19 times and count 19 beeps.
3. Depress brake pedal to confirm.
4. Press button  on the transmitter, you will hear 5 beeps. Factory default setting is reinitialized.
5. Close hood to exit programming mode.

## REMOTE ENGINE STARTER DIAGNOSTICS

**Our remote engine starting** keep always in memory the last event which occurs to the system. This feature will help you to find out the problem why system shut down or why system cannot be started via transmitter.

### TO OBTAIN A DIAGNOSTIC FOR REMOTE STARTER:

Disarm the system by pressing  button. Open hood. Depress the hood pin switch then release. Count the number of flashes from the parking lights and follows the chart below to obtain the diagnostics. To repeat, depress then release the hood pin switch again.

1 Flash:	Brake pedal is depressed
2 Flashes:	By-pass switch for remote starter is activated
3 Flashes:	Hood is open
4 Flashes:	System shut down via transmitter
5 Flashes:	Engine over-revs (system over revolution, RPM)
6 Flashes:	Running time is expired
7 Flashes:	Cranking time expired, engine not running
8 Flashes:	Exit sequence cancelled (for manual transmission only)
9 Flashes:	TACH wire is disconnected
10 Flashes:	Hand brake not pulled (manual transmission only)
11 Flashes:	Door is open after exit sequence is performed (manual transmission only)
12 Flashes:	Ignition key is ON when start via transmitter

# ALARM DIAGNOSTICS

**Our remote starter with alarm** will keep in memory, the last event why alarm system is triggered. This will help you find out which defected zones or sensor have been triggered the alarm system.

## TO OBTAIN AN ALARM DIAGNOSTIC:

First, system must be disarmed by pressing the  button. Open the hood. Depress the brake pedal and count the number of flashes from the parking lights. To repeat, depress and release brake pedal again.

0 Flash:	No false alarm
1 Flash:	Door has been opened
2 Flashes:	Shock sensor has been triggered
3 Flashes:	Hood has been opened
4 Flashes:	Panic mode has been triggered via transmitter
5 Flashes:	Trunk input has been triggered

# LIMITED WARRANTY

The manufacturer guarantees to the purchaser of origin the remote starter and alarm to be free of defect material and labour. However, if it is proven that the product is defective, inside the two year period as from the original date of purchase, the manufacturer will repair or replace, without expenses towards the purchaser, any part (excluding any expenses incurred to deliver the product to the manufacturer) remote starter or alarm which the manufacturer considers defective. After the initial warranty period of 2 years, the manufacturer must repair or replace the defective products with a forwarding costs of 30.00\$US. All the guarantees apply to the original purchaser and ONLY to the vehicle in which it is initially installed. Repairs or replacement of the defective modules must remain at the discretion of the manufacturer. All the other parts, components, accessories or optional equipment relating to the remote starter and alarm are not included in the guarantee of the manufacturer. This guarantee is nontransferable. The original receipt must accompany a request for guarantee of service of any authorized retailer in factory. The fact of not conforming to these conditions can result in cancellation of the guarantee.

This guarantee does not cover the following elements: expenses for labour of removal or reinstallation, transport charges, abuse, misuse or accidental damage of the remote starter and the alarm or parts of the latter. This guarantee is cancelled in the event of amendments, repairs or deteriorations of any part of the product. The manufacturer does not guarantee or does not insure against the loss of the vehicle or its contents. The models of alarm are used only as dissuasion against any possible loss. This alarm can be considered for a reduction of the insurances; premiums please contact your insurance agent for more details. The manufacturer should not be held responsible for any consequent damage connected to a violation of this or any other guarantee express or implicit. This guarantee gives you specific statutory duties. These rights vary according to the area in which you reside.

CERTAIN DAMAGE IS EXCLUDED. The manufacturer declines any responsibility for additional damage caused by the product, including a financial loss, loss of use of the product, hiring of vehicle or all other expenses connected to the maintenance and the guard of the product. The manufacturer declines any responsibility for any additional damage caused by the product or resulting from his use, including the expenses of repair or replacement of other goods damaged or caused by his use, even if the product functions correctly. This product is designed to dissuade from an unauthorized use of the vehicles in which it is installed. The manufacturer does not guarantee that the product is proof against loss and vandalism and the human error or an inadequate use. The manufacturer does not accept any responsibility for any damage occurring any kind that it is caused by a vehicle in which the product is installed or resulting from damage from its use. The manufacturer does not accept any responsibility for any damage resulting from the loss of the vehicle or its contents, caused or claimed caused, directly or indirectly, by a failure of the product.

**STARTER WITH MANUAL SHIFT** – the installation of a remote starter **MUST** be carried out with an indicated manual transmission remote starter. It is the sole responsibility of the operator of the vehicle to make sure that the vehicle is left with the transmission in neutral when the remote starter is used. The manual transmission remote starter is designed as supplementary measure of safety **ONLY!** The manufacturer does not guarantee or does not insure against any damage or loss of life, which can result from remote starting the remote starter when the vehicle is in gear. The models for manual transmission are only designed to act as a preventive measure against starting in gear; it remains the sole responsibility of the operator or the owner of the vehicle to make sure the transmission is in neutral.