

REMOTE ENGINE STARTER SYSTEM

For Automatic Transmission

INSTALLATION MANUAL

WIRING DESCRIPTION

6 WIRES CONNECTOR (14 GAUGE WIRE)

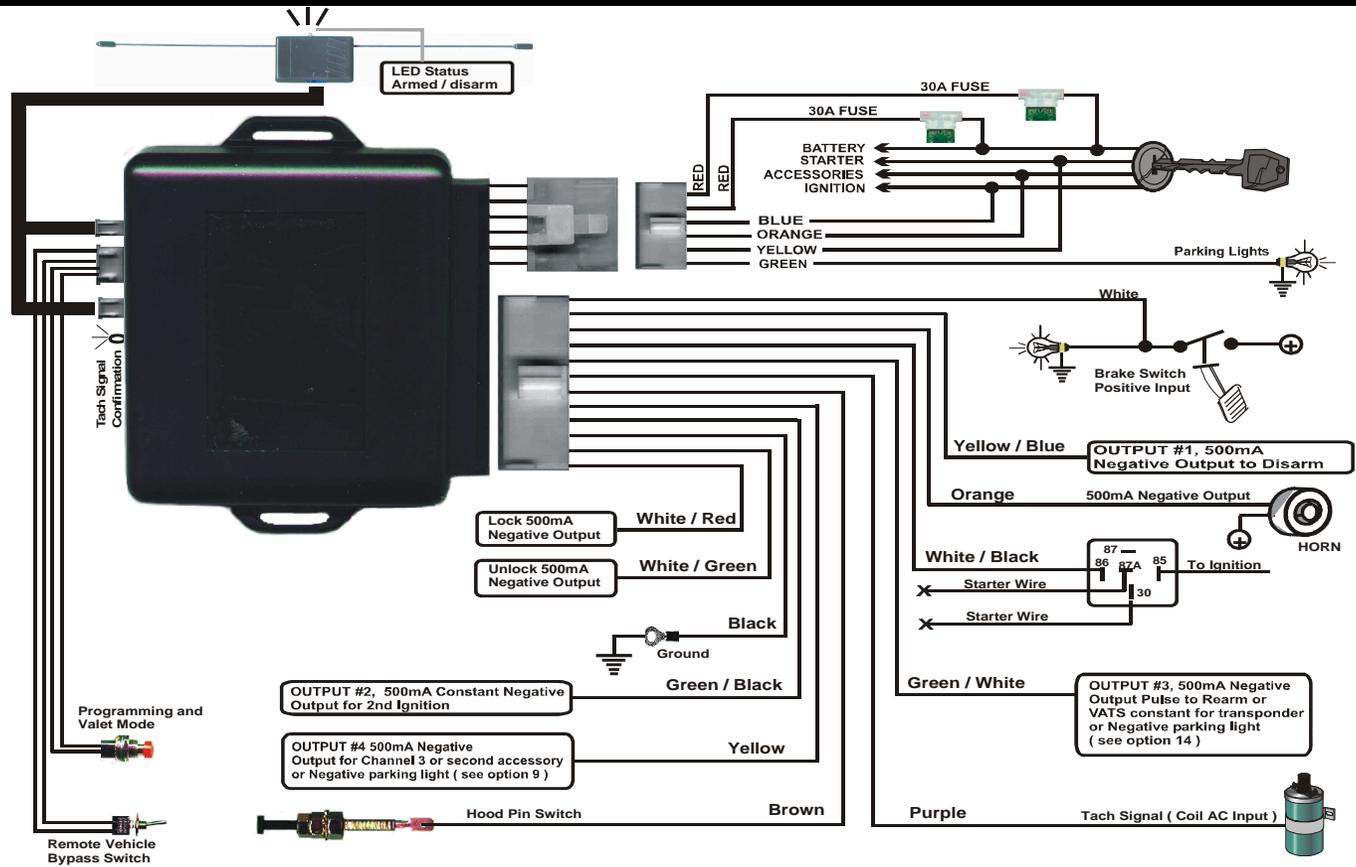
RED	12V constant wire (12V positive input) connect to a 12V constant, 30A fuse built-in
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GREEN	Parking lights wire (12V positive output) connect to parking lights wire
ORANGE	Accessories wire (12V positive output) connect to accessory wire that controls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

WIRING DESCRIPTION

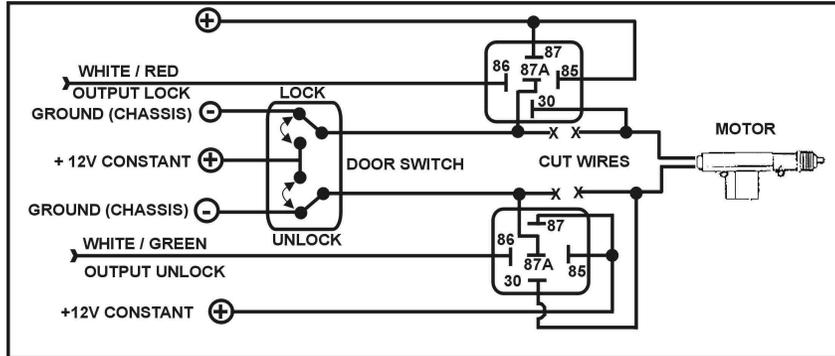
12 WIRES CONNECTOR (20 GAUGE WIRE)

WHITE	Brake wire (12V positive input) connect to the switched side of the brake pedal switch
YELLOW / BLUE	OUTPUT #1 (500mA negative output) give a pulse to disarm factory alarm
ORANGE	Horn or siren wire for Panic Function if connected (500mA negative output) Connect to horn or siren. Require a relay if siren is used
WHITE / BLACK	Starter kill disable wire (500mA negative output) connect to starter kill relay
GREEN / WHITE	OUTPUT #3 (500mA negative output) give a pulse to rear arm factory alarm or constant for transponder by-pass (see option 14)
PURPLE	TACH wire (AC input) connect to TACH signal wire (coil or injector)
BROWN	Hood wire. Connect to hood pin switch (supplied)
YELLOW	OUTPUT #4 (500mA negative output) for trunk release or second accessories or negative parking light (see option 9)
GREEN / BLACK	OUTPUT #2 (500mA negative output) give a negative constant ground out when running by remote starter or used for second ignition
BLACK	Ground wire. Connect this wire to chassis ground
WHITE / GREEN	Unlock wire (500mA negative output) See central door lock connection diagram
WHITE / RED	Lock wire (500mA negative output) See central door lock connection diagram

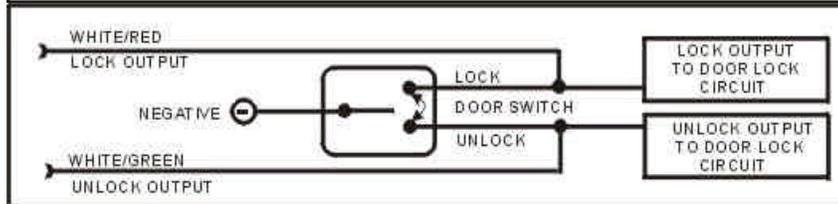
WIRING DIAGRAM



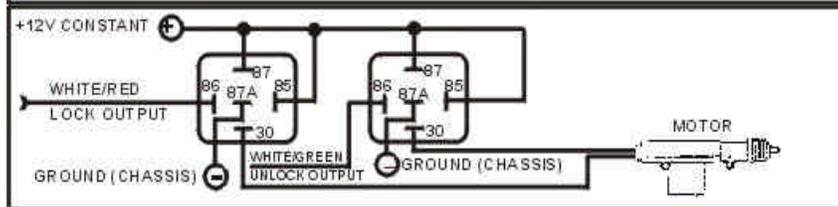
CENTRAL DOOR LOCK CONNECTION



**DIAGRAM 1:
REVERSE POLARITY TYPE**



**DIAGRAM 2:
NEGATIVE TYPE**



**DIAGRAM 3:
ADDING DOOR LOCK ACTUATOR**

PROGRAMMING

Our remote engine starting system 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.

These systems have **20 programmable options** and there are 1 to 3 different possibilities to modify.

Step 1 Press then release valet switch to select option 1 to 24 (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.	FUNCTION	PRESS  BUTTON TO:	PRESS  BUTTON TO:	PRESS * BUTTON TO:
1A	TACH Learning See example: #3	Learn		
1B	TACH fine tuning See example # 4	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	NOT USED	NOT USED	NOT USED	NOT USED
6	Glow plug waiting time before starting	∞ 0 second	10 seconds	20 seconds
7	Audible arming / disarming	Enable	∞ Disable	
8	Night timer mode	Starts engine every 2 hours	∞ Starts engine every 3hours	Starts engine every 4 hours
9	Output# 4 is selected as	∞ Trunk release	Second accessory	Negative parking light
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	Starter kill is selected as	∞ Passive arming	Active arming	
14	Output# 3 is selected as	∞ Rearm Factory Alarm	Transponder Bypass	Negative parking light
15	Horn/Siren	∞ Horn	Siren	
16	NOT USED	NOT USED	NOT USED	NOT USED

∞ Factory default setting

PROGRAMMING CHART

17	Panic alarm duration	** 30 sec.	60 sec.	120 sec.
18	Automatic door locking after engine has been started	** Disable	Enable	
19	Factory default setting See example #5	Press button  to reinitialize 4 beeps confirmation will be emitted		
20	Transmitter code learning See example #2	Press button  4 beeps confirmation will be emitted		

** 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.

OPTION 5: NOT USED

PROGRAMMING OPTIONS

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: AUDIBLE ARMING / DISARMING

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

OPTION 8: NIGHT TIMER MODE

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

OPTION 9: OUTPUT # 4, CAN BE PROGRAMMED TO ACTIVATE AS

1. Trunk release
2. Second accessory, relay required
3. Negative output parking light

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: 1 pulse and Unlock: 2 pulses

PROGRAMMING OPTIONS

OPTION 11: IGNITION LOCK

This feature allows the system to lock 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: LOCK DOORS WHEN ARMING

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

OPTION 13: PASSIVE OR ACTIVE STARTER KILL ARMING

1. Passive arming arms the starter kill, 30 seconds after the ignition is OFF, hood and all doors are closed
2. Active arming arms the starter kill only via transmitter. When the system disarms by accident and no ignition is sense within 30 seconds, the system will rearm automatically

OPTION 14: OUTPUT #3 CAN BE PROGRAMMED

OUTPUT #3 can be selected as a negative 500mA output pulse to rearm the factory alarm when engine shut-off or as a factory transponder bypass or negative parking light.

PROGRAMMING OPTIONS

OPTION 15: VEHICLE HORN OR SIREN (FOR PANIC FUNCTION)

If connected , system will give a 500mA negative ground pulsed signal when panic function is activated via transmitter. When Siren option is selected, the system will give a 500mA negative ground constant. We recommend using the relay for siren, if installed.

OPTION 16: NOT USED

OPTION 17: ALARM DURATION FOR PANIC MODE

You can choose between 30, 60, 120 seconds of alarm duration when panic mode 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 SETTINGS

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.

OPTION 20: TRANSMITTER CODE LEARNING

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

PROGRAMMING EXAMPLES

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

Option 13, default setting is passive arming. System wills 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.**

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
x4 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:	reserved
9 Flashes:	TACH wire is disconnected
10 Flashes:	reserved
11 Flashes:	reserved
12 Flashes:	Ignition key is ON when start via transmitter

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.