

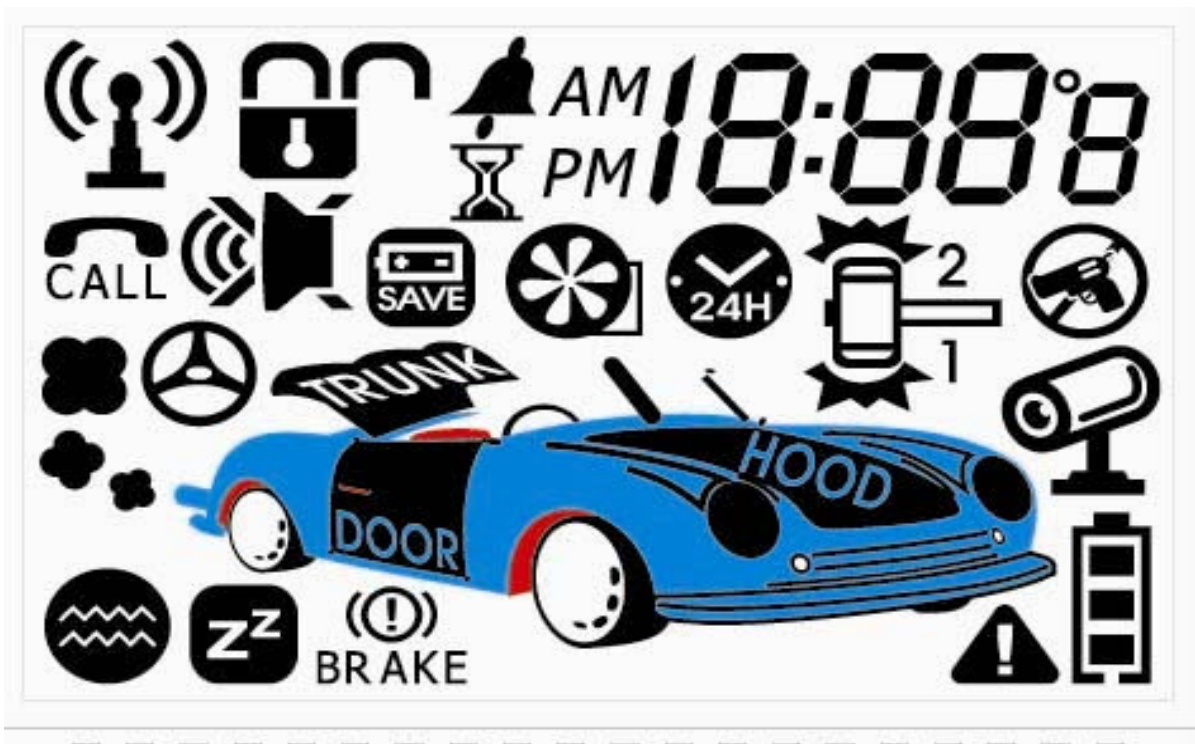
**INSTRUCTION MANUAL FOR**

***Rhino RSA***



























**Remote start alarm with 2 stage impact sensor, LCD  
remote with 2 way communication and turbo timer**








1. Arming The Alarm
2. Disarming The Alarm
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## LCD ICON Description :

- |  |   |
|--|---|
| (1) Door 「  」   | (13) Temperature auto-operation 「  」       |
| (2) Hood 「  」   | (14) Auto-operation in 24 hours 「  」     |
| (3) Trunk 「  」  | (15) Anti-jacking 「  」                   |
| (4) Ignition key “ON” 「  」  | (16) Shock motor 「  」                    |
| (5) Shock sensor :   | (17) Valet mode 「  」                     |
| Stage 1 「  」 / Stage 2 「  」                            | (18) Hand brake 「  」                     |
| (6) Optional sensor 「  」  | (19) Operate successfully 「  」           |
| (7) Lock 「  」   | (20) Pager-Out call 「  」                 |
| (8) Unlock 「  」   | (21) Broken 「  」 (Only Hood, Trunk, Door) |
| (9) Alert 「  」  | (22) Low battery 「  」                    |
| (10) Mute 「  」  | (23) Clock 「  」                           |
| (11) Power save mode 「  」   | (24) Time piece 「  」                     |
| (12) Blast-off situation 「  」 Receiving situation 「  」 |   |



# Function



Mark on button	Sign represents button
	「 CH-1 」
	「 CH-2 」
	「 CH-3 」
	「 CH-4 」
	Backlight
<b>Remote control features</b>	
「 CH-1 」	Arm/Disarm - Lock/Unlock
「 CH-1 」 Hold	Remote Panic
「 CH-2 」	Engine Starter ON/OFF
「 CH-1+2 」	Change Engine Run Time
「 CH-3 」	Remote Temperature Check
「 CH-3 」 Hold	Siren ON/OFF
「 CH-4 」	Arm Mode Shock Sensor by Pass ON
「 CH-4 」 Hold	Trunk release
「 CH-1+3 」	Channel 2 Output
「 CH-1+4 」	Car Finder
「 CH-2+4 」 Hold	Temperature Controlled Auto-Start ON/OFF
「 CH-2+3 」 Hold	Daily Auto Start Timer ON/OFF
「 CH-1+3+4 」 Hold	Valet Mode ON/OFF
「 CH-3+4 」 Hold	Remote Anti-Car-Jack ON/OFF
<b>Hold means to punch for over 1 Sec. then release</b>	

## 1.Arming The Alarm

- (1) System disarm, engine off, close all car doors assuring the hood and trunk are closed and handbrake is pulled up.
- (2) Press and release 「 CH-1 」 siren chirps once with 1 flash, the car door is locked and system enters arm mode.
- (3) Window auto roll up : After the main system enters arm/lock, it will auto roll up the electronic window 「 an accessory is required for the function 」
- (4) Defective zone bypass : In the case that car's siren chirps 3 times or the remote unit sounds alarm, the main system detects a defective zone like any door not yet closed. ( The remote will shows which trigger on LCD and display ,  ) The system will automatically bypass the defective zone and enter arm mode. After the defective zone is corrected, the system enters full arm mode.

\* Note : The remote unit has the following.

(5) If the main system is in audible alert mode, the remote LCD shows 「」 , 「」 with one chirps.

(6) If the main system is in Mute mode, the remote LCD shows 「」 , 「」 with one chirps.

## 2. Disarming The Alarm



- (1) The system must be in the lock/arm mode.
- (2) Press and release 「CH-1」 .The main system will unlock the door, siren chirps 2 times with 2 flashes of parking light.
- (3) Dome light : After the main system enters unlock/disarm or in arm mode, if the alarm is triggered, the dome light will automatically turn on. This can illuminate the car's interior for owner's checking needs and is also a warning against be stolen.
- (4) Security diagnostic report : If siren chirps 3 times or remote unit makes 3 buzzer sounds when remote disarm, there had been some zones being triggered. 「The triggered zones will appear in the remote LCD」
- (5) Auto relock : If the door is not opened within 30 sec after it is unlocked by the remote unit, the main system will automatically lock/arm itself.
- (6) Door lock/unlock upon ignition.
  - A) In disarm/unlock into the car : When the ignition key is turned to “ON” all the car doors will hold auto lock. 「Optional Function」
  - B) Before leaving the car, the ignition key is turned to “OFF” with the key, all of the door will unlock.

## 3. Auto arm or without lock upon closing last door




- (1) Ignition must be OFF.
- (2) The automatic arm or with door lock will be activated with warning siren chirp when 20 Sec. countdown initiates from the time last car door is closed. 「Optional Function」

## 4. Door lock/unlock

- (1) While the engine is running and at the same time the ignition key is at “ON” position.
- (2) If 「CH-1」 is pressed and released each time, the main system will automatically lock/unlock car door with confirmation by its parking light flash.

\* Note : The remote LCD shows 「」 when the door is unlocked and shows 「」 when the door is locked.

## 5. Remote engine start

- (1) Press and release 「CH-2」, the remote will chirps for 5 times. The main system siren chirps 4 times with 4 parking light flashes when the engine is started.
- (2) Remote engine start can auto arm/lock or disarm/unlock. 「Optional Function」
- (3) Remote engine start can't be done under these abnormal conditions :
  - a) The gear is NOT in the neutral or park position.
  - b) Ignition key is turned on.
  - c) Hood is opened.
  - d) Handbrake is depressed under these conditions.
  - e) In the case the remote LCD shows 「」 and chirps 3 times.
- (4) The remote LCD responses refer icon 4 as bellow:
  - f) During the 1<sup>st</sup> stage : The remote LCD shows 「」
  - g) During the 2<sup>nd</sup> stage : When the engine is started, the remote LCD shows 「」 icon along with engine's preset run time for example 「E05」 and chirps 5 times.
  - h) When the preset run time expires, the engine will automatically shut down. 『The remote LCD shows 「E01」 when the last remaining 1 min begins』. The remote LCD shows 「E0」 at the moment of engine shut-off and disappears.
- (5) Parking light flashes 5 times every 30 seconds in Run time.

## 6. Remote control run time with status check

Following the success of engine start, press both 「CH-1+2」 simultaneously each time to allow 5 min engine run time with maximum up to 20 min. The remote LCD shows the run time achieved. For example, the LCD's icon shows 「E05」 means engine run time is 5 min.

## 7. Remote engine shut off

- (1) The remote engine is running.
- (2) Press and release 「CH-2」. The engine shuts off with 2 siren chirps and 2 parking light flashes.  
\* Note : The remote LCD's icon will disappear but show the car's status and chirps 2 times.




## 8. Turbo engine timer

- (1) The turbo timer is for the purpose to extend the engine's life (Because the immediate shut down of the engine is damaging to the engine). If the turbo timer mode is chosen, engine will keep running for the duration of programmed turbo time when the engine is shut down by the ignition key. 「Optional Function Table 2」
- (2) To clear this mode, press and release 「CH-2」 button.

## 9. Immobilize mode upon ignition OFF

- (1) Disarm.
- (2) Turn ignition key to “ON”.
- (3) Disable relay “ON”
- (4) In arm mode disable relay “OFF”.

## 10. Remote temperature start ON/OFF


- (1) Temperature-controlled auto-start “ON” : press and hold both [ CH-2+4 ] to activate this function. Siren chirps 1 times with 1 parking light flashes. Following this function’s activation, siren chirps 3 times with 3 flashes of parking light. The engine will start at the pre-selected temperature and begin running and automatically shut off when the preset run time expires.
  - (2) Temperature-controlled auto-start ”OFF” : Press and release both [ CH-2+4 ] to turn the temperature-controlled auto-start ” OFF”.
- \* Note : The remote LCD responses as below:
- (3) If temperature- controlled auto-start “ON” is activated, the remote LCD shows  to confirm this function is activated and the preset temperature icon like  appears on the display. The transmitter unit chirps one time. [ When the main system sensed -10C temperature, the engine starts automatically ] .
  - (3) If temperature-controlled auto-start “OFF” is activated; the icon  disappears from remote LCD and the remote unit chirps 2 times.
  - (4) When such feature is programmed, the temp-controlled auto-engine run will go on for maximum 2 hours each time with a total 6 repeated cycles.
- \* Note : The temperature can be programmed at -5, -10, -20, -30, depending on your requirement for auto-engine run [ Optional Function Table 2 ] .

## 11. Daily 24 hours or 1-2-4-12 hours Auto-start timer ON/OFF

- (1) Daily auto-start timer “ON” : Press and hold both [ CH-2+3 ] simultaneously, the engine will auto-start at the real time of entry beginning from the next day. Siren chirps 4 times with 4 flashes of parking light and immediate engine running.
- (2) Within the 5 sec from the time engine is started, do the following to get different Start-interval.
  - 1) Press button CH-1 to get auto start with 1 hour interval between engine starts, the LCD will show 1.
  - 2) Press button CH-2 to get auto start with 2 hour interval between engine starts, the LCD will show 2.
  - 3) Press button CH-3 to get auto start with 4 hour interval between engine starts, the LCD will show 4.
  - 4) Press button CH-4 to get auto start with 12 hour interval between engine starts, the LCD will show 12.

(3) Daily or hours auto-start timer “OFF” : Press and hold both [ CH-2+3 ] simultaneously to turn this function Off.

\* Note : The remote LCD responses as below:

(4) Daily auto-start timer On: The remote LCD shows both [  ] and chirps 1 time if this mode is chosen.

(5) Daily auto-start timer Off: The [  ] disappears from the remote LCD and two beeps.

## 12. Remote temperature/status check

(1) Press and release [ CH-3 ] to remote check the interior temperature and the current status of the car.


(2) The remote LCD shows up the car’s current status and the interior temperature of the car and beep. For example, the [ 25°C ] shows the Celsius temperature of the interior of the car.

\* Note : The temperature, indication on the LCD can be programmed into Celsius or Fahrenheit mode as required. [ Optional Function Table 1 ] .

## 13. Active channel for Release trunk

(1) Whether the main system is in lock/arm or unlock/disarm mode, remote trunk release can be done using [ CH-4 ] . [ The car must have electronic trunk release ]

(2) Press and hold [ CH-4 ] to remote release the trunk. Parking light flashes 10 times.


\* Note : If trunk is opened the remote LCD shows up the trunk release icon [  ] along with the current status and chirps 1 time.


## 14. Remote siren/horn alert ON/OFF

(1) While the main system is in lock/arm mode, press and hold [ CH-3 ] to select the audible or mute alert mode.

(2) While the main system is in unlock/disarm mode, press and hold [ CH-3 ] to enter mute alert mode.

\* Note : The remote LCD responses as below:

(3) If the audible alert mode is chosen, the remote LCD shows [  ] with two beeps.

(4) If the mute alert mode is chosen, the remote LCD shows [  ] and beeps.

(5) Even the main system is in the mute alert mode, the transmitter will still alert when any switch is triggered.



## 15. Active channel 2

Press and release both [ CH-1+3 ] simultaneously to activate channel 2 (white wire). The siren chirps 1 time with flashes of parking light.

## 16. Car locator/search



Press and release both [ CH-1+4 ] simultaneously, flashes of parking light.

## 17. Shock sensor by pass

- (1) Arm alarm.
- (2) This function can be activated to avoid false alarm especially when the car is parked in an area near a rail-line.
- (3) First, press and release [ CH-4 ] the main system's shock sensor only first stage becomes ineffective. Remote LCD shows  and one beep.
- (4) Second, press and release [ CH-4 ] the main system's shock sensor becomes ineffective. Other security functions in lock/arm mode are operable. Remote LCD shows  and two beeps.
- (5) During the system's arm mode, after the shock sensor is being triggered for 6 times; the system will by pass the shock sensor.
- (6) Third, press and release [ CH-4 ] button to get the inactive shock sensor into normal working mode again.

\* Note : The remote LCD shows up  and with  one beep alert.

## 18. Alarm & warn away mode

- (1) In arm mode, if the car detects any impact, the shock sensor's first stage will be triggered. The siren chirps 5 times with 5 flashes of parking light.  
\* Note : The remote LCD shows up  with 5 short beeps alert for 2 times.
- (2) If the heavier impact is detected by the main system, the second stage shock sensor will be triggered. The siren blurts for 30 sec with parking light flashing for the same time.  
\* Note : The remote LCD shows up  with beep alert for 15 sec.
- (3) If the trigger is generated by other means like door, trunk, hood open or ignition "ON" under arm mode, the siren blurts 30 sec with parking light flashing for the same time and the engine start circuit is killed.  
\* Note : The remote LCD will show up icon of triggered zone and keep beeping for 15 sec.
- (4) While the alert is being triggered in arm mode, press and release 「 CH-1 」 once to disable



triggering. The 2<sup>nd</sup> press and release of 「 CH-1 」 to make the main system enter unlock/disarm mode.


- (5) The main system will enter security mode during or after the triggered zone is closed. In case that the triggered zone is still open, the system will isolate it. But the system will still protect all other zones.


## 19. Remote panic

When the engine shuts off, press and hold 「 CH-1 」 ,the parking light flashes 30 sec with siren alert for 30 sec and auto enter arm/lock mode.

## 20. Intelligent Car-Jack

- (1) While the engine is running, press and hold both 「 CH-2+3 」 simultaneously to activate this function which is followed by 2 stages of active anti-Car-Jack mode.

\* Note : The remote LCD shows 「  」 and beeps one time.

- (2) When driving (ignition is in “ON” position), open and close the door.  
Or, open and close door then turn ignition to “ON” position, Car-Jack timer is going to be activated.
- (3) Wait for 20 sec, then parking light flashes for 1 min when siren chirps and parking light flashes after 20 sec, then turn off the engine, siren chirps for 1 min, Car-Jack is activated.
- (4) If brake pedal is pressed within the said 1 min, or 1 min later without any pressing of brake pedal, engine will shut down, the system is entered alarm mode. Siren chirps for 30 sec, parking light flashes for 30 sec, LED flashes quickly, doors unlock.
- (5) To deactivate Car-Jack, only press Car-Jack button. When Car-Jack is “OFF”, system will go back to disarm for normal operating.
- (6) When pressing and holding both 「 CH-2+3 」 simultaneously, the remote LCD doesn't show out the icon 「  」 ,which means this is without Car-Jack function.

## 21. Remote Valet mode ON/OFF

- (1) Press and hold all 「 CH-1+3+4 」 simultaneously, to enter valet mode “ON”. The siren chirps 1 time with 1 flash of parking light. During the valet “ON” mode, all functions are inoperative except for the remote door open and trunk release that remain operable.
- (2) Press and release all 「 CH-1+3+4 」 simultaneously to return to valet mode “OFF” and at the same time the main system restores all functions back to normal and unlocks the door.

\* Note : The remote LCD responses as below :


a) When valet mode is switched On, the LCD remote displays 「  」 and beeps 1 time.

b) When valet mode is switched Off, the LCD remote doesn't display 「  」 and beeps 2 times.

## 22. Enter Valet mode by over-ride switch

- (1) Turn ignition key to “ON”
- (2) Press and release over-ride switch for 12 times.
- (3) Turn ignition key to “OFF”
- (4) Repeat above steps to turn off valet mode.

## 23. Pager-Out call

If pressing the pager-out call button on vehicle-base antenna case, the LCD remote shows 「 CALL 」 and ring tone.

## 24. Learning New Remotes

The main system can memorize transmitter's coding. 「From up to 6 different remote units」

- (1) Turn the ignition key to “ON” 「Engine must be stopped」 Press and release the over-ride switch for 10 times then turn Ignition key to “OFF” with parking light flashes 10 times, which confirm the system has entered active learning mode.
- (2) Press and release 「CH-1」 the siren chirps 1 time confirming code learning is completed. Follow the same step (2) with other remote transmitters, one after another, to allow the main system learn coding of each transmitter. 「Maximum 6 remotes can be learned by the RSA」.  
The system will automatically jump out of learning mode if no signal is received within 20 sec from the last signal.
- (3) The pre-memorized coding will be erased each time when the learning mode is activated. Re-do the code learning in this case.
- (4) If more than one remote are used in remote operating the same system, the car status will be displayed on the single remote which send the latest remote signal.

## 25. Hopping code transmission

This system uses the transmission on hopping code technology which is totally free from being counterfeited by code grabbers.

## 26. PIN switch test for LED

- (1) The system must be in Disarm mode with the ignition “ON”.
- (2) If all the switches are in good condition, opening any car door, trunk or hood can make the LED flash. The LED turns off when they are closed.


## 27. Dash LED status indicator

Fix the LED status indicator at the appropriate location inside the car to allow maximum visibility of it.


LED blinking pattern for various standby modes while ignition key is turned "OFF"	
Different standby modes	Pattern of LED blinking
Arm mode	One Flash
Daily auto-start time ON	Three Flashes
Temp-controlled auto-start ON	Two Flashes
Daily auto-start time ON+Temp-auto-start ON	Four Flashes
Valet mode ON	LED solid ON
Which PIN switch active	LED light

## 28. Power save mode of transmitter

If this mode is chosen appears on the remote LCD : The remote unit closes its reception circuit until any of the remote buttons is pressed. 「Choice of this mode helps save remote units battery power and ensures long battery life.」


\* Note : When 「」 flashes, that means LCD **DO NOT** have Receiver function.


## 29. Low battery indicator

When 「」 appears on the remote LCD, its battery is about to exhaust. Insert the new battery.

「Alkaline battery of size AAA is recommended.」

## 30. Receiver status

When the transmitter is normal and in Receiving status, the receiver icon 「」 on the remote's LCD appears.

When the remote's button is pressed, the electric wave icon 「」 on the remote's LCD appears.

## 31. Manual Arm and Disarm (In case the remote transmitter is lost).

(a) Manual Arm :

1. Turn the ignition key to “ON” position. 「Engine must be running!!」
2. Press and release the over-ride switch for 4 times.
3. Turn the ignition key to “OFF” position.

After 20 sec, the main system will enter arm mode.

(b) Manual Disarm :

1. Turn the ignition key to “ON” position.
2. Press and release the over-ride switch for 10 times.
3. Wait for 10 sec.
4. Siren chirps 2 times with 2 flashes of parking light. The system will enter disarm mode.

\* Note : Under manual arm or disarm modes, all the system’s features can still be operated by the remote transmitter.

## 32. Factory Reset

1. Disarm
2. Turn ignition key to “ON” position.
3. Press over-ride switch for 16 times.
4. Turn ignition key to “OFF” position.
5. Enter disarm mode.
6. Preset Factory setting. (Table 1 & Table 2)

### 33. Programming of remote control unit

The LCD remote control unit has basic features of (a) EL backing (b) most power saving circuitry (c) audio or vibration alert mode (d) different indication of. 「 Real time, alarm clock, count-down timer. 」

Operation of keys.	Functions	Notes
「 T 」	Lamp ON (Automatic turn-off after few sec)	
「 CH-2+ T 」	Entry/exit of Power-saving mode	
「 CH-1+ T 」	Choice of audible/vibration alert mode	
「 T 」 Press and hold	Entry /exit of hour adjust mode	Under any time adjustment mode :
「 T 」 1 time	Entry into minute adjust mode	「 CH-3 」 Press for upward adjustment or choice of ON mode 「 CH-3 」 Press and hold for quick upward adjustment 「 CH-4 」 Press for downward or choice of "OFF" 「 CH-4 」 Press and hold for quick downward adjustment
「 T 」 2 times	Alarm clock mode, by hour adjustment	
「 T 」 3 times	Alarm clock mode, by min adjustment	
「 T 」 4 times	Choice of ON/OFF for alarm clock mode	
「 T 」 5 times	Countdown mode, by hour adjustment	
「 T 」 6 times	Countdown mode, by min adjustment	
「 T 」 7 times	Choice of ON/OFF of countdown mode	
「 CH-3+ T 」	Entry/exit of alarm adjust mode	
「 CH-3+ T 」 1 time	Choice of 10 min countdown mode	
「 CH-3+ T 」 2 times	Choice of 20 min countdown mode	
「 CH-3+ T 」 3 times	Choice of 30 min countdown mode	
「 CH-3+ T 」 4 times	Choice of 60 min countdown mode	
「 CH-3+ T 」 5 times	Choice of 90 min countdown mode	
「 CH-3+ T 」 6 times	Choice of 120 min countdown mode	

## Optional Function 1

1. Main system disarm.
2. Turn ignition key to “ON” position.
3. Press and release over-ride switch 6 times.
4. Turn ignition key to “OFF” (Siren chirps 6 times, parking light flashes 6 times.)
5. Enter Optional Function 1 mode.
6. Press and release over-ride switch follow Table 1.

**Table 1**

<b>Optional Feature Table * (Default Change by remote’s button)</b>					
<b>Press time of over-ride switch</b>	<b>LED Flash time</b>	<b>Features</b>	<b>Press CH-1 chirps 1 time</b>	<b>Press CH-2 chirps 2 times</b>	<b>Pre-set</b>
<b>1 Time</b>	1	Last door Auto-arm ON/OFF (Only for DOOR & ACC)	ON	OFF	OFF
<b>2 Times</b>	2	Remote disarm then re-auto arm ON/OFF	ON	OFF	ON
<b>3 Times</b>	3	Turn ignition key to on Auto Lock ON/OFF	ON	OFF	ON
<b>4 Times</b>	4	Remote LCD’s temperature display	°C	°F	°C
<b>5 Times</b>	5	Remote engine start with Lock ON/OFF	ON	OFF	OFF
<b>6 Times</b>	6	Siren Output Siren/Horn	Siren	Horn	Siren
<b>7 Times</b>	7	Remote start relay 2/10 sec. Crank for gasoline or diesel engine	Gasoline 2 sec.	Diesel 10 sec.	2 sec.
<b>8 Times</b>	8	Last door Auto-arm Lock On/Off	ON	OFF	OFF

## Optional Function 2

1. Main system disarm.
2. Turn ignition key to “ON” position.
3. Press and release over-ride switch 8 times.
4. Turn ignition key to “OFF” (Siren chirps 8 times, parking light flashes 8 times)
5. Enter Optional Function 2 mode.
6. Press and release over-ride switch follow Table 2 :

**Table 2**

<b>Option Feature Table</b>			<b>Default change by remote’s button.</b>				
<b>Press times of over-ride switch</b>	<b>LED flashes times</b>	<b>Features</b>	<b>Press CH-1 chirps 1 time</b>	<b>Press CH-2 chirps 2 times</b>	<b>Press CH-3 chirps 3 times</b>	<b>Press CH-4 chirps 4 times</b>	<b>Pre-set</b>
<b>1 Time</b>	1	Temperature controlled engine start at -5/-10/-20/-30	-5°C	-10°C	-20°C	-30°C	-5°C
<b>2 Times</b>	2	Engine runtimes upon remote start for 5/10/15/20 min.	5 min	10 min	15 min	20 min	5 min
<b>3 Times</b>	3	Reserved	Reserved	Reserved	Reserved	Reserved	Reserved
<b>4 Times</b>	4	Crank time for each start 800ms/1200ms/1800 ms /3000ms	800ms	1200ms	1800ms	3000ms	800ms
<b>5 Times</b>	5	CH-2 output times 1s/10s/30s/OFF	1s	10s	30s	OFF	1s
<b>6 Times</b>	6	Enter arm relay timer 3/15/30/45 sec	3	15	30	45	3sec
<b>7 Times</b>	7	Central door lock output timer	Lock/Unlock 0.8 sec	Lock/Unlock 5 sec	Lock 0.8 sec/ Unlock 2 pulse 0.8 sec	Lock 30 sec/Unlock 0.8 sec	Lock/U nlock 0.8 sec
<b>8 Times</b>	8	Turbo Timer	Off	1 Min.	2 Min.	3 Min.	Off

# Installation Notes

**IMPORTANT NOTE:** the remote start feature cannot be bench tested easily as the alarm senses engine run by an increase in the alarm supply voltage as the alternator begins to generate energy. Only experienced installers should attempt to install the remote start feature.

Do not exceed the current rating on any of the outputs, if unsure use a relay to control the output instead.

**Installation of the remote start feature in manual vehicles shall be done at the owner's risk. The remote start feature could potentially cause property damage and/or injury/fatality.**

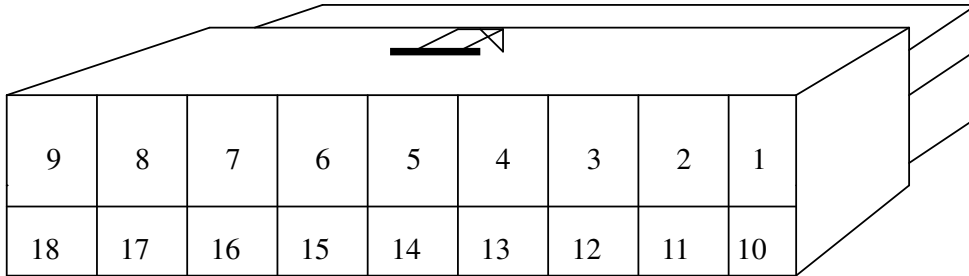
## **Pre-installation check**

Before installation of the system, see first if you can start the engine with the ignition key without stepping on the accelerator. If the engine start can be done this way, proceed with your installation. If not, the remote start feature cannot be installed.



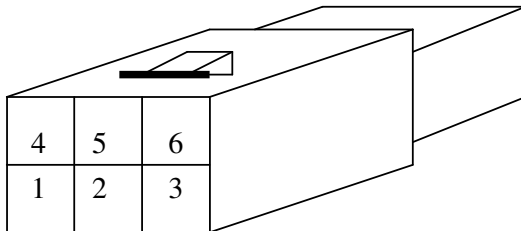
## RSA Connector Wiring Diagram

**The 18-pin connector (Alarm Circuit):**



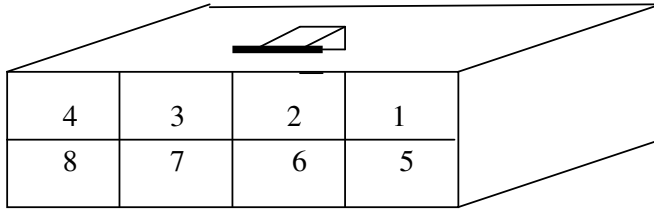
Pin	Connection	Pin	Connection
1	Not Connected	10	Negative IN (Bonnet)
2	Negative IN (AUX)	11	Negative IN (Anti-Carjack)
3	Negative OUT (Disarm/Run Time)	12	Negative OUT (Channel 2)
4	Negative Out (On Arm)	13	Negative OUT (Boot)
5	Negative IN (Handbrake)	14	Negative IN (Boot Trigger)
6	Negative IN (Door Trigger)	15	Positive IN (Door Trigger)
7	Positive OUT (Siren)	16	GND
8	+12VDC	17	+12VDC
9	Positive OUT (Blinker)	18	Positive OUT (Blinker)

**The 6-pin Connector (Central Locking):**



Pin	Connection	Pin	Connection
1	Unlock N/O	4	Lock N/O
2	Unlock COM	5	Lock COM
3	Unlock N/C	6	Lock N/C

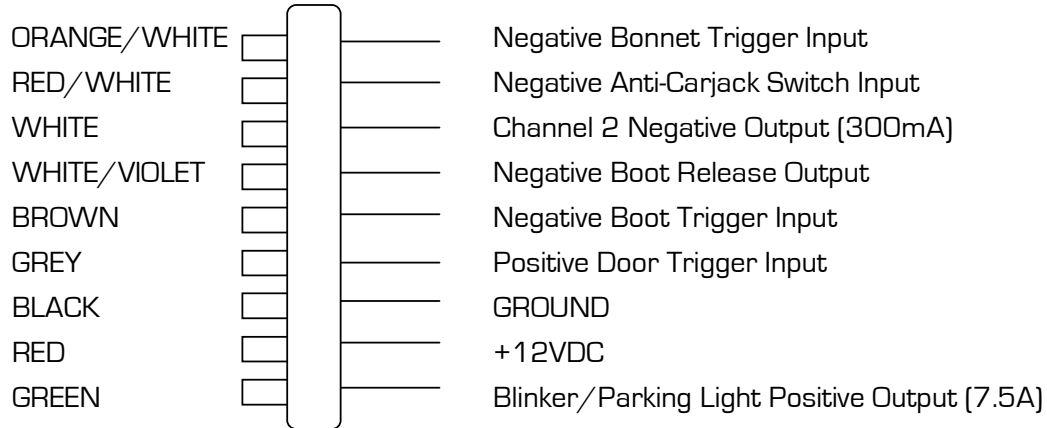
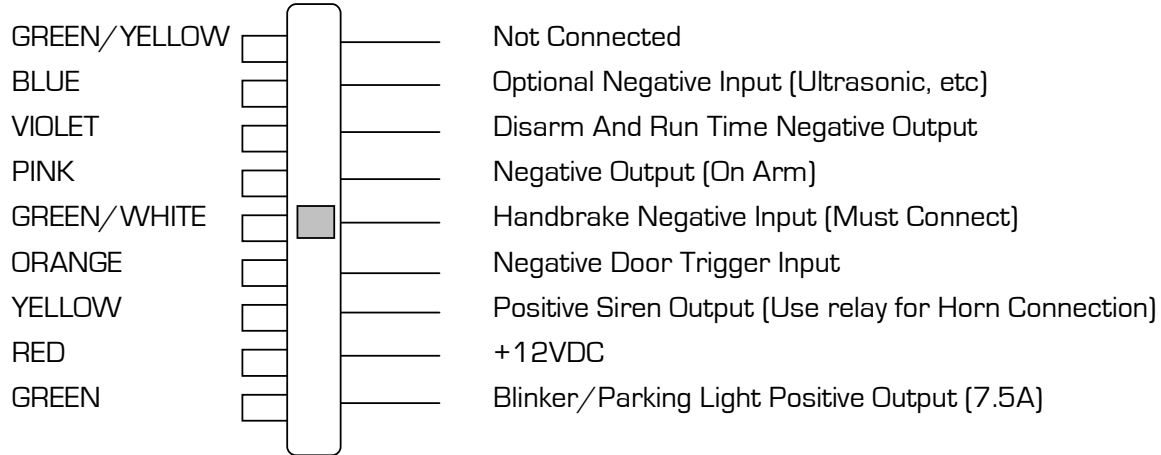
### The 8-pin Connector (Remote Start):



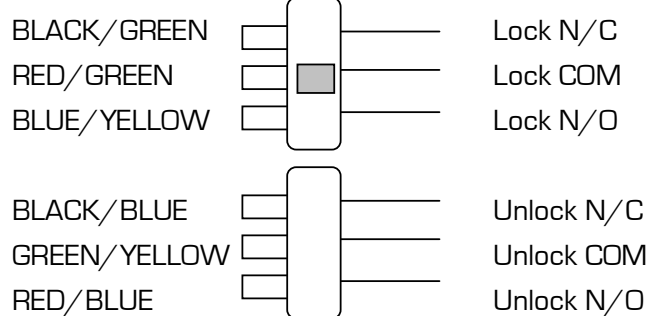
Pin	Connection	Pin	Connection
1	Positive OUT 1 (IGN 1)	5	Positive IN (ACC)
2	Positive OUT 2 (IGN 2)	6	Not Connected
3	Positive OUT (Starter)	7	Negative OUT (Dome)
4	+12VDC	8	Not Connected

# RHINO RSA ALARM WIRING DIAGRAM

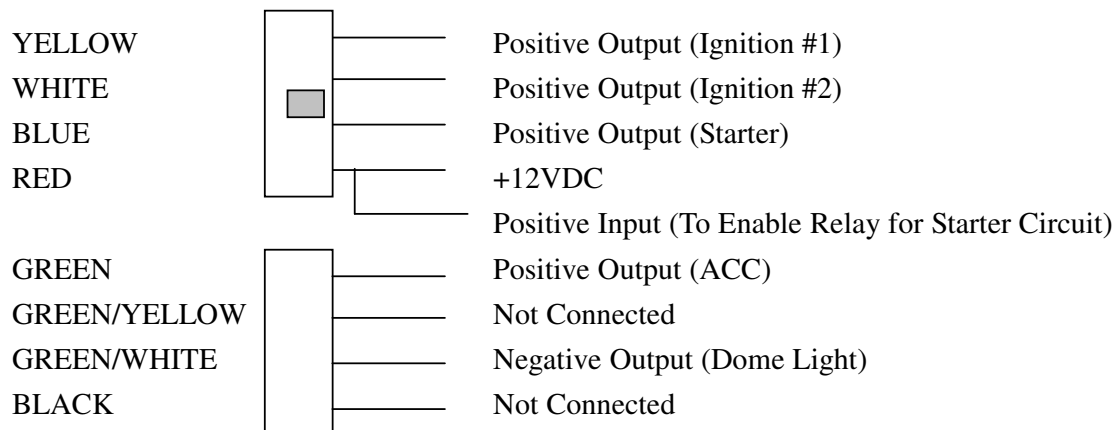
## 18 Wire Connector



## 6 Wire Connector



## 8 Wire Connector



Connector Number	Colour	<u>CONNECTION</u>
<b>18 Wire Connector Block (ALARM CIRCUITS)</b>		
1	Green/Yellow	Not Connected
2	Blue	Optional negative INPUT(-), for microwave, ultrasonic etc.
3	Violet	Disarm and run time negative OUTPUT(-)
4	Pink	Negative OUTPUT(-) on arm
5	Green/White	Handbrake negative INPUT(-), this wire must be connected
6	Orange	Negative door trigger INPUT(-). For door switch with positive(+) trigger output, leave the Orange wire unconnected.
7	Yellow	Positive siren OUTPUT(+), 1.5Amp. If connecting to horn, used external relay.
8	Red	Connect to +12V
9	Green	Blinker/Parking light positive OUTPUT(+), 7.5Amp
10	Orange/White	Negative bonnet trigger INPUT(-)
11	Red/White	Negative anti-carjack switch INPUT(-). This provides negative(-) input for the switch-controlled anti-carjack function. If this wire gets the (-) input while the engine is running, the main system won't enter anti-carjack mode.
12	White	Channel 2 negative OUTPUT(-), 300mA
13	White/Violet	Negative boot release OUTPUT(-), 300mA, 1 second pulse. An additional relay is required for the boot release. With additional of external relay, this wire can be used for boot release. But the vehicle must have motor for boot release.
14	Brown	Negative boot trigger INPUT(-)
15	Grey	Positive door trigger INPUT(+), connect only if vehicle has positive switching door switches
16	Black	GROUND
17	Red	+12V
18	Green	Blinker/Parking light positive OUTPUT(+), 7.5Amp

Connector Number	Colour	CONNECTION
<b>6 Wire Connector Block (CENTRAL LOCKING)</b>		
1	Red/Blue	Unlock N/O
2	Green/Yellow	Unlock COM
3	Black/Blue	Unlock N/C
4	Blue/Yellow	Lock N/O
5	Red/Green	Lock COM
6	Black/Green	Lock N/C

Connector Number	Colour	CONNECTION
<b>8 Wire Connector Block (REMOTE START)</b>		
1	Yellow	Ignition #1 positive OUTPUT(+)
2	White	Ignition #2 positive OUTPUT(+)
3	Blue	Starter solenoid positive OUTPUT(+)
4	Red	Connect to +12V
5	Green	Accessory positive INPUT(+)
6	Green/Yellow	Not Connected
7	Green/White	Dome light negative OUTPUT(-), 300mA
8	Black	Not Connected

## Troubleshooting Guide

Car does not remote start?

- Check clutch inhibit switch is bypassed. Some vehicles require the clutch to be depressed prior to starting the engine.
- Check handbrake (alarm input) wire is being grounded when the handbrake is pulled up.
- Gear is NOT in the neutral or park position (applies to automatic transmissions).
- Ignition key is turned on.
- Bonnet is open.