

Operation Instructions For
THE ENHANCER™
SPLIT SYSTEM ALARM WITH
TWO POINT ENGINE IMMOBILISATION
FOR ED, EF & EL FALCON, VPS2, VR/VS & VT COMMODORE, & TE MAGNA
(Not suitable for vehicles fitted with factory alarm ie Berlina, Calais, Statesman)



TO ARM/DISARM ALARM

The alarm is activated by pressing the button on your vehicles existing remote control transmitter. The blinkers will flash once, and the siren will beep once, 1 second after the vehicle's normal routine. The dash LED-light will stay on for 20 seconds then flash, THE ALARM IS NOW ON. To deactivate the alarm, press the button again. The blinkers will flash twice and the siren will beep twice, 1 second after the vehicle's normal routine. THE ALARM IS NOW OFF. **Note:** Allow approx. 5 seconds between arming & disarming to allow The Enhancer to carry out full system function.

PRE-ALERT IMPACT WARNING WITH ETS™

This special feature provides a two stage impact sensing system. It gives the security conscious owner a very sensitive impact sensor that will give a potential thief prior warning that the vehicle is protected by this most formidable alarm system. On detection the siren will simply beep for a few seconds to warn away the thief. If the vehicle is attacked any further the system will move into full siren mode. The unique ETS™ Environment Tuned Sensor is able to distinguish between environmental shocks caused by aircraft, trucks, or extreme weather conditions, and the impact caused by any thief attempting to break in or other heavy impacts. This process allows a trouble free sensitivity that ordinary alarms simply can not provide.

FEATURES USED BY INSTALLERS / SERVICEMEN

1. INSTALLER / SERVICE MODE:

Service mode is accessed by turning the keyswitch on the back of the SB41 siren to the off position. This enables complete deactivation of the system without using the remote control. This is normally done when other mechanical/electrical work is performed on the vehicle. **Installer mode** is accessed by the following procedure: 1. Turn the siren keyswitch off. 2. Turn the ignition in the car on. 3. Turn the siren keyswitch on. 4. Turn the ignition off. 5. Turn the siren keyswitch off then on. You are now in installer mode. The installer test mode is used to quickly test and fault find; it is used to check each sector input when door, hood, aux or voltage drop is triggered. A signal is given via the blinkers, the dash LED light and the siren. **To exit** installer mode turn the ignition on then off, and then arm & disarm the system using the remote controls.

2. PAT™ PAST ALARM TRIGGER MEMORY READ OUT VIA SIREN AND LED:

To access the PAT™ memory, open the bonnet and press the remote control once within 15 seconds, the alarm history is then indicated via the siren and LED. The memory is cleared whenever the power is removed from the alarm or if the keyswitch is turned to off on the SB41 siren (service mode).

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| 1 Beep, 1 Flash - Voltage Drop Alarm | 2 Beep, 2 Flashes - Not Used On This Model |
| 3 Beep, 3 Flashes - Shock Sensor Alarm | 4 Beep, 4 Flashes - Power Fail Alarm |
| 5 Beep, 5 Flashes - Ignition Alarm | 6 Beep, 6 Flashes - Aux Alarm |
| 7 Beep, 7 Flashes - Door Alarms | 8 Beep, 8 Flashes - Bonnet / Boot Alarm |

If two previous alarms were caused by ie. voltage drop and shock sensor the LED will flash and the siren will beep once for voltage drop, then no noise for 1 second then beep three times for shock sensor. The memory will hold ten alarm memories. **The last memory heard is the most recent alarm sector triggered.**

RHINO ENHANCER™ ALARM SYSTEM FEATURES:

- ~ All Microprocessor Controlled
- ~ Ultra-Bright Red Flashing Light
- ~ Intelligent Pre-Alert Impact (Shock) Sensor with ETS™
- ~ Two Point Engine Immobilisation
- ~ Battery Backup System
- ~ Automatic Siren Reset Period (30 Seconds)
- ~ Arming and Disarming Confirmation Beep
- ~ Visual Arming and Disarming via Blinkers
- ~ Selectable Current Sensing Circuit
- ~ All Points of Entry Protection
- ~ Past Alarm Trigger PAT™ Memory History Reporting Mode
- ~ Service and Override Mechanical Keyswitch
- ~ Safety Circuit Prevents Arming While Ignition On
- ~ World First Learning Mode for Installing the System
- ~ World First Poly Fuse Electronic Protection

TEACHING THE ENHANCER™ TO THE VEHICLE: **FOLLOW THESE STEPS CAREFULLY.**

1. Connect all wires shown in the wiring diagram except the yellow wire. (ie. Don't connect the ignition wire).
2. Install the siren in a position where it will be unlikely to get wet.
3. Plug the module into the loom. Please ensure that the siren keyswitch is turned to the off position.
4. The vehicle's existing immobiliser must be disarmed. (The vehicle should be unlocked).
5. Connect the yellow wire temporarily to +12V.
6. Turn the siren keyswitch on.
7. Arm the vehicle's system via the remote control.
8. Wait longer than 10 seconds.
9. Then disarm the vehicle's system via the remote control.
10. Wait longer than 10 seconds.
11. Repeat steps 7 to 10, ten (10) times. The siren will beep once to confirm completion. If the Enhancer goes into siren mode, repeat steps 3 - 11 again.
12. Remove the yellow wire from +12V.
13. Arm the vehicle via the remotes. The Enhancer should now arm (1 Beep & 1 Flash).
14. Disarm the vehicle via the remotes. The Enhancer should now disarm (2 Beeps & 2 Flashes).
15. If the Enhancer did not arm/disarm then repeat steps 3-13, otherwise continue to step.
16. Connect the yellow wire to the vehicle's ignition system as per wiring instructions.

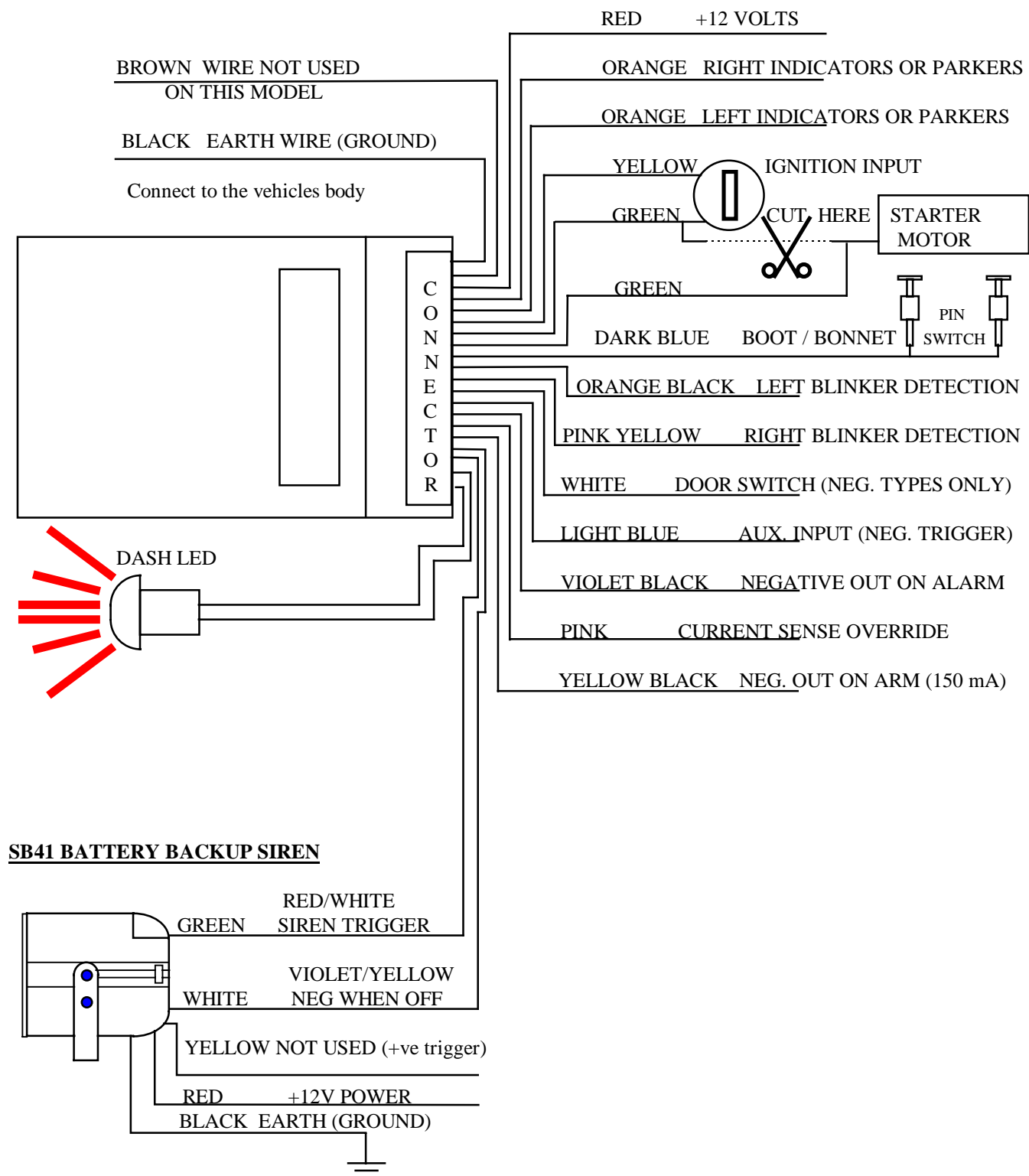
WIRING INSTRUCTIONS

RED	- CONNECT TO CONSTANT +12 VOLTS VIA THE FUSE BOX AT THE POINT WHERE THE INTERIOR LIGHT CIRCUIT IS POWERED. CURRENT (VOLTAGE) SENSING WILL NOT WORK IF THIS PROCEDURE IS NOT FOLLOWED.
BLACK	- CONNECT TO A SUITABLE EARTH ON THE CAR BODY
ORANGE (x2)	- CONNECT TO THE LEFT AND RIGHT INDICATOR OR PARKING LIGHT CIRCUITS OF THE VEHICLE TO FLASH THE INDICATORS OR THE PARKING LIGHTS
YELLOW	- CONNECT TO A +12 VOLTS IGNITION SWITCHED LEAD, WHICH <i>DOES NOT FALL TO 0 VOLT WHEN THE ENGINE IS CRANKED</i>
DARK BLUE	- CONNECT TO PIN SWITCHES FOR BONNET - CONNECT TO PIN SWITCHES FOR BOOT (PLEASE NOTE: IT IS ADVISABLE TO WIRE THE BOOT TO THE DOOR SWITCHES: THIS WILL PROVIDE “DOOR AJAR” WARNING ON THE BOOT, AND ALSO SIGNAL THE AUTO RE-ARM FEATURE TO CANCEL IF THE BOOT IS OPENED BY THE OWNER ON DISARMING THE SYSTEM.)
WHITE	- CONNECT TO EXISTING DOOR SWITCHES.
GREEN (X2) Inside main loom	- LOCATE THE POSITIVE FEED WIRE TO THE STARTER SOLENOID, CUT THAT WIRE AND JOIN THE TWO GREEN WIRES TO EITHER END OF THE STARTER FEED WIRE WHICH YOU HAVE JUST CUT WARNING: CUT OUT RELAYS HAVE 12A MAX RATING. DISABLE ONLY STARTER SOLENOID, FUEL PUMP, OR IGNITION COIL IF VEHICLE IS NOT EFI. UNDER NO CIRCUMSTANCES SHOULD YOU CUT THE VEHICLE’S MAIN IGNITION SYSTEM.
GREEN (X2) Outside main loom	- LOCATE THE POSITIVE FEED WIRE TO THE FUEL PUMP, CUT THAT WIRE AND JOIN THE TWO GREEN WIRES TO EITHER END OF THE FUEL PUMP FEED WIRE WHICH YOU HAVE JUST CUT WARNING: CUT OUT RELAYS HAVE 12A MAX RATING. DISABLE ONLY STARTER SOLENOID, FUEL PUMP, OR IGNITION COIL IF VEHICLE IS NOT EFI. UNDER NO CIRCUMSTANCES SHOULD YOU CUT THE VEHICLE’S MAIN IGNITION SYSTEM.
YELLOW/ BLACK	- THIS IS A SWITCHED NEGATIVE OUTPUT (-VE 150mA). CONNECT TO THE NEGATIVE WIRE (USUALLY BLACK) ON ANY ACCESSORY USED ie. ULTRASONIC / GLASS BREAKAGE / MICROWAVE DETECTORS OR ETC
LIGHT BLUE	- THIS IS A NEGATIVE TRIGGER, AND SHOULD BE CONNECTED TO THE OUTPUT CIRCUIT WIRE ON ANY ACCESSORY TO BE USED. (ie ULTRASONIC, MICROWAVE, OR GLASS BREAK DETECTORS, ETC.)
BROWN	- NOT USED ON THIS MODEL
VIOLET/BLACK	- NEGATIVE TRIGGER ON ALARM TO BE USED TO INTERFACE TO PAGER OR OPTIONAL SIREN (100mA MAXIMUM)
ORANGE/BLACK	- POSITIVE INDICATOR SENSING WIRE FOR ARM/DISARMING THE ENHANCER. CONNECT THIS WIRE TO THE LEFT BLINKER CIRCUIT
PINK/YELLOW	- POSITIVE INDICATOR SENSING WIRE FOR ARM/DISARMING THE ENHANCER. CONNECT THIS WIRE TO THE RIGHT BLINKER CIRCUIT
PINK	- CURRENT SENSING OVERRIDE. CONNECT TO POSITIVE POWER TO DISABLE CURRENT SENSING
RED/WHITE	- NEGATIVE TRIGGER TO SIREN. CONNECT TO THE GREEN WIRE OF AN SB41.
VIOLET/YELLOW	- ALARM OVER RIDE. CONNECT TO THE WHITE WIRE ON AN SB41.

CURRENT SENSING

The alarm is fitted standard with current sensing. This feature incorporated in Rhino systems has been proven to be very reliable. The alarm will detect any sudden drop in voltage in the vehicle’s electrical system, for example if the interior light comes on, or if the electrical system shows a voltage drop through tampering. If removal of this feature is necessary, this can be achieved by connecting the pink wire coming out from the loom tubing to the red power wire + 12V.

ALARM WIRING DIAGRAM



INSTALLERS PLEASE NOTE: It is essential that both the orange/black & pink/yellow wires are connected to the car's indicator (blinker) circuits, otherwise the enhancer can not "learn" itself into the vehicles factory system.

WARNING: If turbo cooling fans run after the ignition key is turned off, you then must connect the pink wire to the positive power feed wire of the electric cooling fan. This will override the fan from causing false alarms due to voltage drop.

RHINO: MAKING THE INSTALLER'S LIFE EASIER!

VEHICLE WIRING COLOUR GUIDE BELOW:

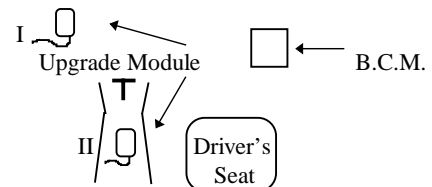
HOLDEN VR&VS Commodore

POWER	Red at the relay near the fuse box
EARTH	Connect to the vehicles chassis. (There is a good spot in front of the fuse box)
IGNITION	Blue/White at the relay near the fuse box
LEFT BLINKER	Dark Blue in Kick Panel
RIGHT BLINKER	Light Blue in Kick Panel
DOOR	Orange/White in Kick Panel.
STARTER WIRE	Thick Purple
FUEL PUMP WIRE	

Location of Unit in Commodore & Magna.

It is important that the module is not mounted directly next to, or upon the Body Control Module. The recommended location is either (I) behind the glovebox, or (II) in the centre console cavity. Securely fasten the unit by cable ties to the car, and the antenna should be away from the B.C.M.

Top View



HOLDEN VP Series 2

POWER	Red at the relay near the fuse box
EARTH	Connect to the vehicles chassis. (There is a good spot in front of the fuse box)
IGNITION	Blue/White at the relay near the fuse box
LEFT BLINKER	Dark Blue
RIGHT BLINKER	Light Blue
DOOR	White wire in the drivers kick panel.
STARTER WIRE	Purple
FUEL PUMP WIRE	

MITSUBISHI TE MAGNA

POWER	Red/Blue (Loom to B.C.M.)
EARTH	Connect to the vehicles chassis. (Earth bolt in driver's kick panel)
IGNITION	Black/White (Keyswitch loom)
LEFT BLINKER	Green/Black (Loom to B.C.M.)
RIGHT BLINKER	Green/Yellow (Loom to B.C.M.)
DOOR	Green/Orange (Loom to B.C.M.)
STARTER WIRE	Black/Yellow (Keyswitch loom)

FORD EF AND ED

* Mount unit RHS under dash with antenna away from B.C.M.

POWER	Yellow at the ignition keyswitch.
EARTH	Connect to the vehicles chassis. (There is a good bolt next to the bonnet release handle when the trim is removed).
IGNITION	Red/ Yellow at the ignition keyswitch.
LEFT BLINKER	Green in Kick Panel
RIGHT BLINKER	Green/Blue in Kick Panel
DOOR	Black/Blue in Kick Panel.
STARTER WIRE	
FUEL PUMP WIRE	Black with Yellow Trace.

HOLDEN VT Commodore Executive

POWER	Orange/Black
EARTH	Connect to the vehicles chassis.
IGNITION	Pink
LEFT BLINKER	Dark Blue
RIGHT BLINKER	Light Blue
DOOR	White/Yellow
STARTER WIRE	
FUEL PUMP WIRE	Thick Purple

Mount siren on the flat surface beside the fuse box in the engine bay. The plastic cable tray around the strut tower has clips on its underside into which the siren loom will fit. Run the loom through clutch cable grommet in the fire wall. Mount the bonnet switch in factory provided square hole in front of the centre of the radiator. An extra bump stop must be fitted in the hole in the bonnet lid directly above the switch cavity.

Pull down the drivers side dash panel. There are no screws. Remove the black plastic pin on the left hand side to completely remove this panel. Undo four screws to remove the lower cover of the centre console on the driver's side. Mount the module on the metal bracket that is now exposed.

All wiring is available behind the driver's side kick panel. Remove the cover strip in the tread plate to expose four torx head screws. Remove them. Lift up the tread plate to expose a screw in the kick panel and remove it. Remove one screw behind the bonnet release lever. Pull the kick panel out. Split the wiring loom at the Y intersection.

There is no good position for the LED. A hole may be drilled below the head light switch, depending upon customer preference.