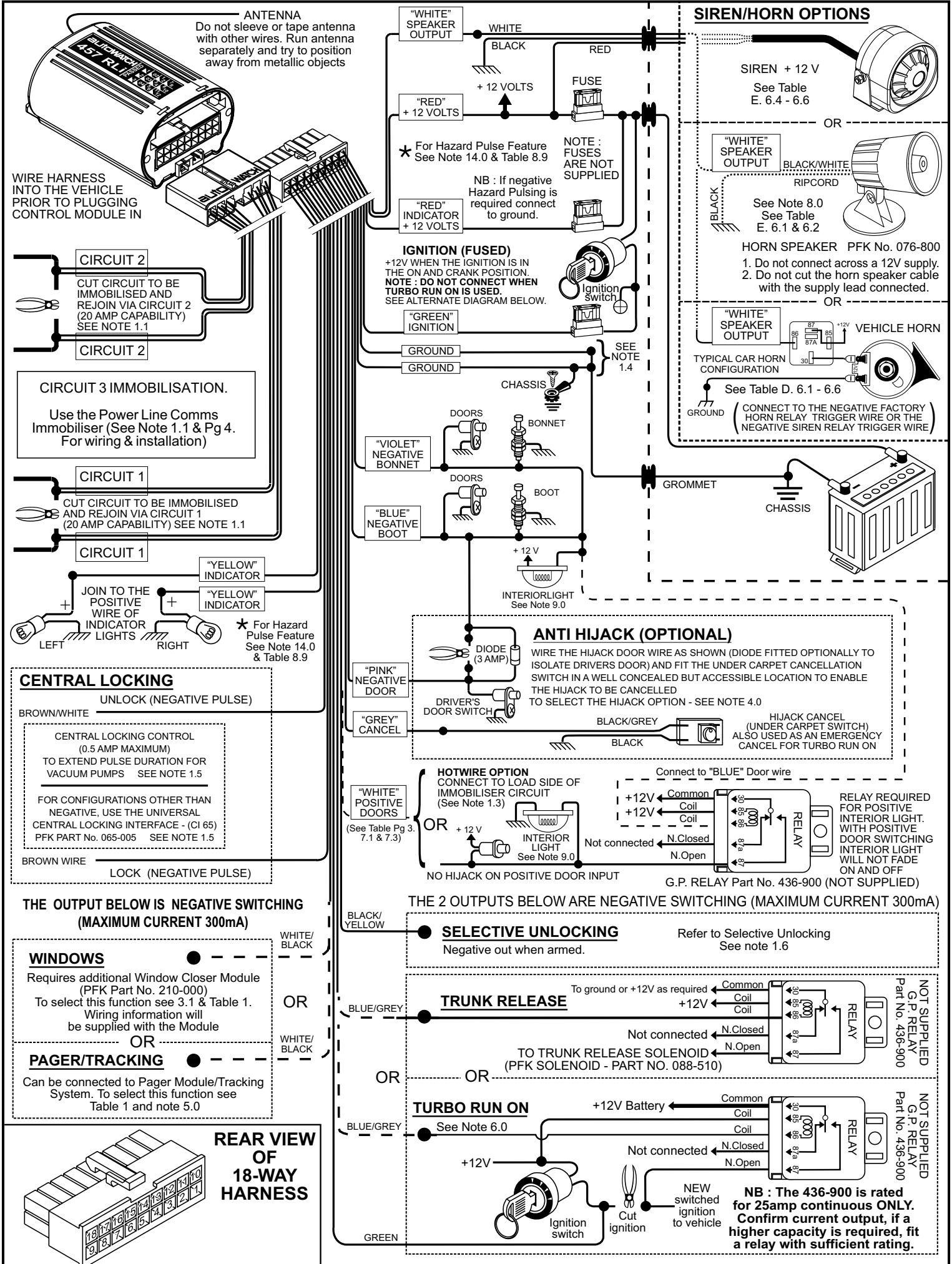
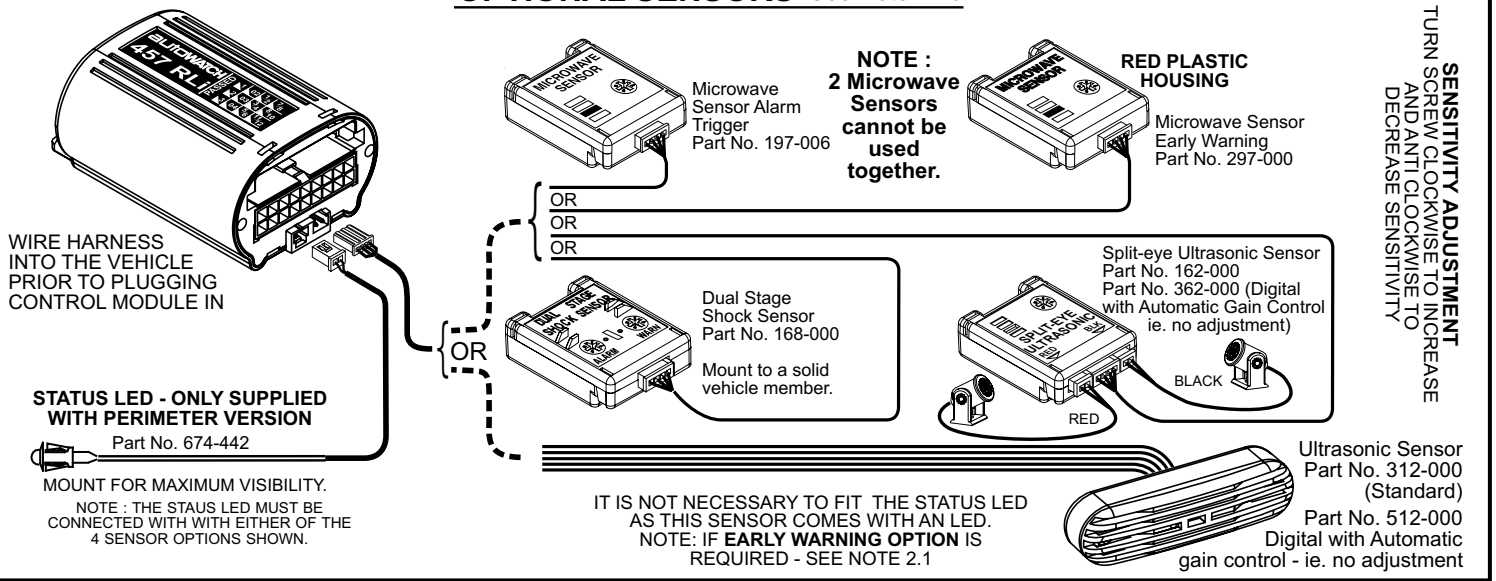


1. Ignition (Green Label)
2. Neg. Bonnet (Blue Label)
3. Hijack Disable (Grey Label)
4. Ground (Black Label)
5. Ground (Black Label)
6. Unlock (Brown/white wire)
7. Aux 2 (Windows/Pager) (Black/white wire)
8. Aux 1 (Selective Unlock / Neg. Out when armed) (Black/yellow wire)
9. + 12V (Red Label)
10. Speaker / Siren / Horn (White Label)
11. Negative + Hijack Doors + Dome Light driving (Pink Label)
12. Negative Boot (Violet Label)
13. Hotwire / Brake input / Positive Doors (White Label)
14. Aux 3 (Trunk release / Turbo-run on) (Blue/grey wire)
15. Lock (Brown wire)
16. Indicator +12V (Red Label)
17. Indicator (Yellow Label)
18. Indicator (Yellow Label)

OPTIONAL SENSORS See Note : 2.0



NOTE A : TO FULLY UNDERSTAND THE OPERATION OF THE 457RIi, YOU MUST GO THROUGH THIS DOCUMENT IN CONJUNCTION WITH THE OPERATORS BOOKLET SUPPLIED WITH THE PRODUCT.

NOTE B : IF YOU ARE UPGRADING A 276RLi OR 446RLi PRODUCT TO THE 457RIi, ALTHOUGH THEY ARE PLUG COMPATIBLE YOU WILL NEED TO ALTER A FEW WIRES TO ACCOMMODATE THE ADDITIONAL FEATURES. (CROSS REFERENCE THE 276RLi OR 446RLi DIAGRAMS TO THE 457RIi DIAGRAM TO SEE THE VARIATION IN WIRING)

MECHANICAL INSTALLATION
MOUNTING
The control module must be installed in a concealed location inside the vehicle. Do not plug in the control module until the wiring is complete. All wire joints must be soldered and well insulated. Mount the control module vertically with the wires exiting from the bottom to prevent damage resulting from water leaking into the vehicle and into the unit.

1.0 WIRING
NOTE : DO NOT REMOVE WIRE LABELS UNTIL THE INSTALLATION IS TESTED AND WORKING.

1.1 IMMOBILISER CIRCUITS 1, 2 & 3
Circuits 1 & 2 are 20 amp circuits and have two wires each side to ensure adequate current capacity. Circuit 3 uses the Power Line Comms Immobiliser (See Pg 4.) This relay can be fitted anywhere in the vehicle to offer enhanced security. The 12 volt connection should not be made directly at the vehicle battery as this may result in poor communication between the alarm and relay module.

1.2 IGNITION
Connect the wire marked "ignition" to a point that has + 12 volts while the ignition switch is in the "ON" and crank position. Do not connect to the auxiliary position.

1.3 HOTWIRE (TRACKING APPLICATION) (OPTIONAL)
Connect the hotwire input to the load side of an immobiliser positive circuit. Select the Tracking option. When this circuit is hotwired it will fire the alarm and give a negative out on the tracking wire. (See note 5.0) If this wire is not used for a Hotwire application, it can be used as a positive door input. (See Table 7.1 & 7.3).

1.4 GROUND/CHASSIS
Connect the wires marked "Ground" to two independent earth points.

1.5 CENTRAL LOCKING
The central locking output is designed for low current negative lock and unlock systems with a switching duration of 0.3 sec.. For other configurations use the CI 65 (Part No. 065-005). See note 3.1 to extend the time to 3.5 sec. for Pneumatic pumps.

1.6 SELECTIVE UNLOCKING (BLACK/YELLOW WIRE) SEE 3.0 & TABLE 1
Two methods of selective unlocking are available. Program option 123 41. **Type 1** is suited to **aftermarket installations** where central locking motors are retrofitted to the vehicle. This option isolates the passenger motors by interrupting the high current wire to the motor while the drivers door unlocks. Program option 123 42. **Type 2** is suited to **OEM** central locking configurations. With this system the unlock pulse unlocks the drivers door only, and the selective unlock pulse unlocks the other doors. (Additional wiring information is supplied with the CI-65 and Selective Unlock Relay.)

2.0 MOVEMENT SENSOR
Use any PFK movement sensor shown on the diagram. Unless the single piece ultrasonic sensor is used which incorporates the status, light it is necessary to fit the separate LED, (PFK Part No. 674-442). Sensitivity is factory set but can be adjusted with the adjustment screwdriver supplied. Clockwise increases sensitivity.

2.1 EARLY WARNING (SEE 3.0 & TABLE 1)
The early warning option is available using a combination of different sensors. (The dual stage shock sensor can be used on its own but is not acceptable as a level 4c but can be used for the early warning detector. PFK Part No. 168000). To select early warning refer to the programing procedure and enter the code 123 77. See 3.0 & table 1
It is possible to install a one piece sonic (PFK Part No. 312-000 or the 512-000), together with an early warning sensor.
Note: To include an early warning sensor you will require the 2 to 1 special adapter harness (PFK Part No 446-450).

3.0 PROGRAMABLE FEATURES.
No programming jigs are required. Programming the selectable features is as easy as 1,2,3 ! The number 1,2,3, is entered using the flashing LED (when the immobiliser is armed) and the ignition switch. By entering the additional two digits the features as described in the Table 1. can be selected or de-selected. NOTE THAT A ZERO IS REPRESENTED BY 10 FLASHES.

If you are at any stage confused by the number of flashes, wait for 10 flashes then simply start from the beginning again.

3.1 ENTERING PROGRAM MODE.
Once the installation is complete, do a functional test to ensure that the installation is working. Once you are satisfied that the basic features are working, switch the alarm off and allow the immobiliser to arm - indicated by the flashing status light (LED). Now enter program mode as follows:

a. Switch the ignition ON. The LED will turn steady ON.
b. Switch the ignition OFF, the LED will start to flash. After 1 flash, turn the ignition ON. The LED will be steady ON. This is the first digit - "1" entered.
c. Switch the ignition OFF, the LED will start to flash. After 2 flashes, turn the ignition ON. The LED will be steady ON. This is the second digit - "2" entered.
d. Switch the ignition OFF, the LED will start to flash. After 3 flashes, turn the ignition ON. The LED will flash rapidly to indicate that you have entered the third digit "3" correctly and that you are in program mode. Wait until the LED is steady on again.
e. Enter the first 2 digits of the feature you require. As an example, to select Hijack, the digits 2,2 would need to be entered. Proceed as follows:-

i. Switch the ignition OFF, the LED will start to flash. After 2 flashes, turn the ignition ON. The LED will be steady ON. This is the first function digit - "2" entered.

ii. Switch the ignition OFF, the LED will start to flash. After 2 flashes, turn the ignition ON. The LED will flash rapidly to indicate that you have entered the second digit "2" correctly and the siren will sound once. The hijack feature is selected.
You may select and deselect additional features by simply entering its two digit selection code - it is not necessary to re-enter 1,2,3 again.

4.0 ANTI HIJACK (SEE 3.0 & TABLE 1 pg 3)
The first hijack warning will be after 90 seconds. This time can be changed to 45 seconds if required. (See table 1 - Option 2.4)
Once you have selected the feature, you can enable and disable it by transmitting with the remote control while keeping the hijack button depressed. A single tone will indicate that hijack has been enabled and two tones indicates that it is disabled. If the hijack button is pushed, it will barp the hooter warning you that the hijack routine is deselected.

Note : The hijack cancel switch must be fitted as an emergency override even if the hijack option is not selected.

NOTE : THE PROGRAMMING SELECTION CODES WHERE APPLICABLE ARE THE SAME AS THE 446RLi BUT DIFFER FROM THE 436RLi.

457 RLi FEATURE SELECTION TABLE

OPTION	Enter the program code 1,2,3 followed by the Feature Selection Code FEATURE	FEATURE SELECTION CODE	INDICATION ONE BEEP	 TWO BEEPS
1,1	Trigger Report back (See 11.0)	1,1	LED FLASHES RAPIDLY - 2 SECS	SWITCH IGNITION OFF TO CLEAR
2,2	Hijack - Selection (See 4.0)	2,2	ON	OFF *
2,4	Hijack Time Selection (See 4.0)	2,4	45 SECS	90 SECS *
3,3	Unlock with Ignition	3,3	ON	OFF *
3,4	Lock with Ignition	3,4	ON	OFF *
	A. If Selective Unlock is not used:			
3,6	Double Unlock Pulse (See 1.6)	3,6	ON	OFF *
3,7	Double Lock Pulse (See 1.6)	3,7	ON	OFF *
	B. If Neg. Out when Armed is not used: *(See wiring diagram for explanation)*			
4,1	Selective Unlock - Type 1 (See 1.6)	4,1	ON	OFF *
4,2	Selective Unlock - Type 2 (See 1.6)	4,2	ON	OFF *
4,3	Selective Unlock Inhibit (See 1.6)	4,3	ON	OFF *
4,4	Selective Unlock / Neg. Out when armed	4,4	Neg. Out	Selective *
5,1	Window / Pager (See 5.0)	5,1	PAGER	WINDOW *
	C. If Pager is not used, the following window options may be selected:			
5,2	Window 10 second wind time	5,2	ON	OFF *
5,3	Window 45 second wind time	5,3	ON	OFF *
5,4	Window 120 second wind time	5,4	ON	OFF *
5,5	Trunk / Turbo Run On (See 6.0)	5,5	TURBO	TRUNK *
5,7	Turbo Run On Time (See 6.0)	5,7	60sec	180sec *
5,9	Horn Speaker / Siren (See 8.0)	5,9	SPEAKER *	HORN
	D. If Horn is selected:			
5,8	Horn Pulsed / Non Pulsed (BBU)	5,8	Pulsed *	Non Pulsed
6,1	Arm/disarm pulses on/off	6,1	ON *	OFF
6,2	Arm/disarm pulses 7ms duration	6,2	ON	OFF *
6,3	Arm/disarm pulses 14ms duration	6,3	ON	OFF *
6,4	Arm/disarm pulses 21ms duration	6,4	ON *	OFF
6,5	Arm/disarm pulses 30ms duration	6,5	ON	OFF *
6,6	Arm/disarm pulses 45ms duration	6,6	ON	OFF *
	E. If Speaker is selected:			
6,1	Arm/disarm tones on/off	6,1	ON *	OFF
6,2	Horn Speaker	6,2	ON	OFF *
6,3	Horn Speaker	6,3	ON	OFF *
6,4	Neodymium Siren tone 1	6,4	ON *	OFF
6,5	Neodymium Siren tone 2	6,5	ON	OFF *
6,6	Neodymium Siren tone 3	6,6	ON	OFF *
7,1	Positive Door Input } *Only one of these may be selected*	7,1	ON *	OFF
7,2	Brake Input }	7,2	ON	OFF *
7,3	Hotwire Input }	7,3	ON	OFF *
7,7	Early Warning (See 2.1)	7,7	ON	OFF *
8,3	Interior / Dome Light	8,3	ON *	OFF
8,5	Auto Arming alarm (See 7.0)	8,5	ON	OFF *
8,7	Lock when Auto Arming or Auto Rearming	8,7	ON	OFF *
8,8	Door open audible warning	8,8	ON *	OFF
8,9	Hazard Pulse	8,9	ON	OFF *
9,9	Central locking time 0.3/3.0 sec	9,9	0.3 sec*	3.0 sec
0,0	Reset (Revert to Factory Setting) *	0,0	LED FLASHES RAPIDLY FOR 2 SECONDS	

TABLE 1

NOTE : A ZERO IS REPRESENTED BY TEN FLASHES

FACTORY SETTINGS HIGHLIGHTED WITH A* IN THE TABLE ABOVE.

5.0 PAGER & TRACKING OUTPUT. (SEE 3.0 & TABLE 1 note 5.1)

Note that this option is not available if the window winding option is required. The output is a low current output that can be connected to a pager or a tracking unit. It will switch to ground:

i) Five seconds after the alarm is triggered.
ii) If the hotwire input is switched to 12 volts while the vehicle is immobilised.
iii) Five seconds after the end of the hijack sequence.

6.0 TURBO RUN ON MODE (SEE 3.0 & TABLE 1)

When selecting this option trunk release will be disabled. Use the Blue/Grey wire to energise the relay(s) to feed power to the ignition circuits required to keep the vehicle running after the vehicle is turned off. The feed-points should be identified after fitting the immobilisation. The default run-on time is 180 seconds but this can be altered to 60 seconds using the program option - see Table 1 - Option 5.7.

7.0 AUTO ARMING/AUTO REARMING (SEE 3.0 & TABLE 1 note 8.5)

The factory default is to auto rearm but auto arming can be selected. The doors can be programmed to lock when auto arming or auto rearming. Consult with the owner before selecting this option as it can result in the keys being locked in the vehicle!

8.0 SIREN/SPEAKER

A siren can be used in place of a horn speaker. In this case the output will switch low for the duration that the siren sounds. Do not connect a horn speaker if the siren option has been selected as the speaker and/or the alarm unit will be damaged.

9.0 INTERIOR LIGHT

The interior light switching circuit is connected to the negative door wire (pink label marked “doors”). The light will fade on and off. The dome light automatically coming on, can be deselected - See table 1 Option 8.3.

NOTE : If the vehicle has positive door switching this feature can still be wired using an additional relay but without the fade facility. (SEE WIRING DIAGRAM PAGE 1)

10 QUICK TEST

To enter quick test, enter the Program Code, 1,2,3. The arming time and the siren time are shortened to facilitate quick and easy testing. Hi-jack time remains the same. To exit quick test, do not trigger the alarm for a period of two minutes and the unit will exit automatically. Alternatively, select any programmable feature.

11 TRIGGER REPORT BACK

In the event of a false alarm complaint from a customer, the cause can be accessed using the Trigger Report Back feature. To access this information, enter the program code, 1,2,3, followed by the code 1,1. The LED begins to flash a number of times to indicate the cause of the alarm.

These flashes are as follows:

1 Flash :Movement Sensor (Ultrasonic or WPIR)
2 Flashes : WPIR Zone (When allocated to its own zone)
3 Flashes :Panic
4 Flashes :Ignition
5 Flashes :Negative / Hijack Door
6 Flashes : Positive Door / Hotwire
7 Flashes : Boot
8 Flashes : Bonnet

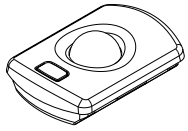
The trigger information is cleared once the alarm has been turned on and off 10 times without triggering.

12 PROGRAMMING NEW REMOTE CONTROLS

The unit has the ability to learn up to 6 remotes. To program, refer to the 5 digit user code supplied with the unit or the code attached to the control module and proceed as follows:

a. Enter each digit of the code using the flashing LED and ignition switch. After entering the last digit, the LED will flash rapidly for 2 seconds.
b. Enter the two digit code 1, 1. The LED will flash rapidly for two seconds.
c. Transmit with the new remote for approximately half a second, pausing for half a second between each transmission, until the LED flashes rapidly indicating that the remote is now programmed. Further remotes may now also be programmed.
d. Note that if a seventh transmitter is programmed into the alarm system it will override the first code learnt. To remove all transmitters, fill the 6 memory spaces with 6 new transmitters, or a single transmitter 6 times.
e. To exit program mode, either wait for 10 seconds without transmitting or switch the ignition off.

13 PROGRAMMING NEW WPIR'S



The unit has the ability to learn up to 6 WPIR's. To program, refer to the 5 digit user code supplied with the unit or the code attached to the control module and proceed as follows:

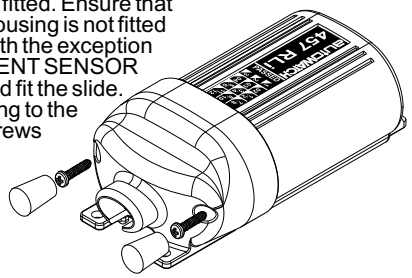
a. Enter each digit of the code using the flashing LED and ignition switch. After entering the last digit, the LED will flash rapidly for 2 seconds.
b. Enter the two digit code 3, 3. The LED will flash rapidly for two seconds.
c. Within 8 seconds press the button on the WPIR. The LED will turn on, and a barp will be heard indicating that the WPIR has been detected. Within 5 seconds, the WPIR needs to be confirmed into a zone by either pressing the “Arm/Lock” or any other button. (“Arm/Lock” will program the WPIR to operate in conjunction with the movement sensor in its zone) (Any other button will program the WPIR to operate independently in its own zone). Once done the LED will turn off and a barp will be heard to confirm the WPIR has been successfully programmed.
d. Note that if no button is pressed within the given 5 seconds the detected WPIR will be ignored and you will have a further 5 seconds in which to press a button on another WPIR and once detected you may confirm it as above.
e. To exit program mode, either wait for 10 seconds or switch the ignition off.

14 HAZARD PULSE

To check that the ‘Hazard Pulse’ mode is suitable for a particular car, access the back of the vehicle’s hazard light switch and momentarily connect a ground (via a 5Amp fuse) to the switched side. The hazard lights should start flashing and will continue to flash until the ground wire is connected again to the same point on the switch. If the test is satisfactory, enable ‘hazard’ while programming (Table 1 option 8.9) and connect the yellow wire from the alarm to the switched side of the hazard light switch. If central locking drives hazards, connect “Yellow Indicator wires” to park lights.

15 FITTING THE SECURITY HOUSING

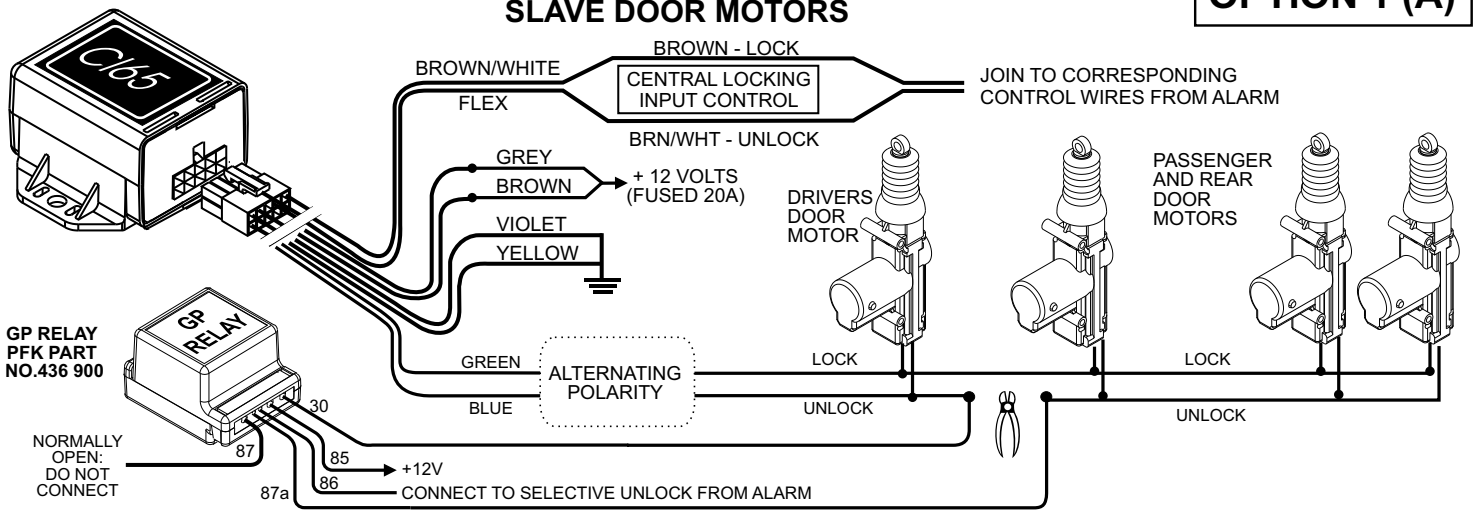
Once the installation is complete and fully tested the security cover can be fitted. Ensure that the slide in the security housing is not fitted and route all the wires, with the exception off the LED and MOVEMENT SENSOR wires, through the slot and fit the slide. Attach the security housing to the main casing using the screws provided and insert the anti-tamper Screw caps.



SELECTIVE UNLOCKING WIRING OPTIONS

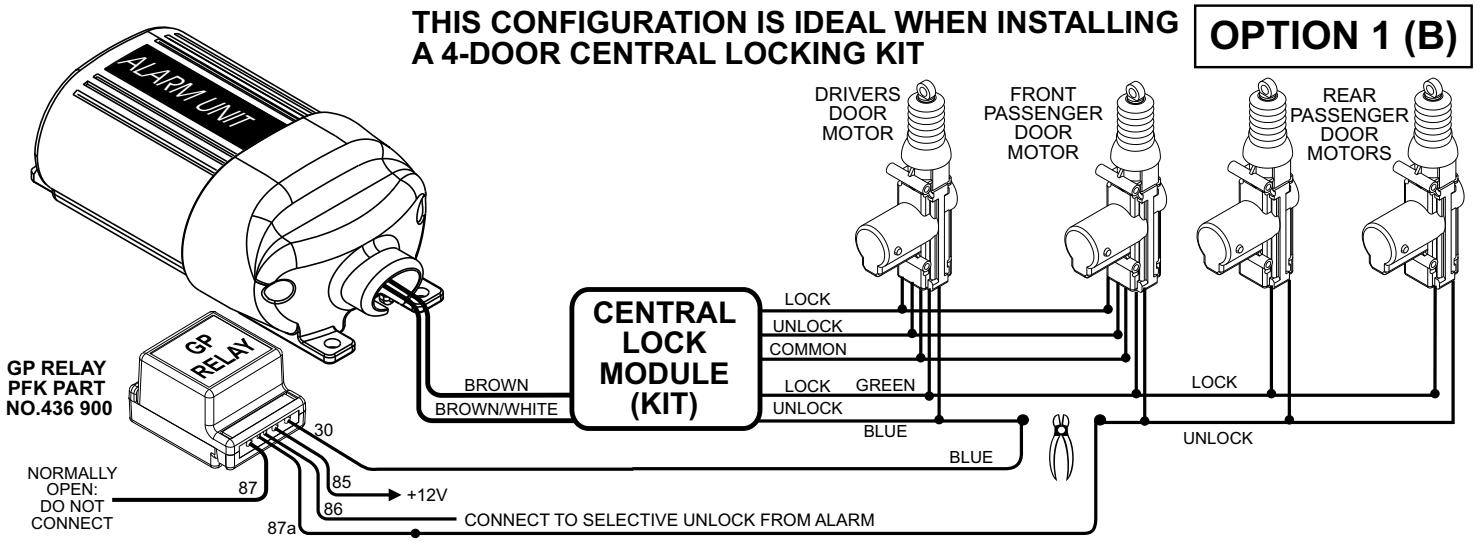
THIS CONFIGURATION IS IDEAL WHEN USING SLAVE DOOR MOTORS

OPTION 1 (A)



THIS CONFIGURATION IS IDEAL WHEN INSTALLING A 4-DOOR CENTRAL LOCKING KIT

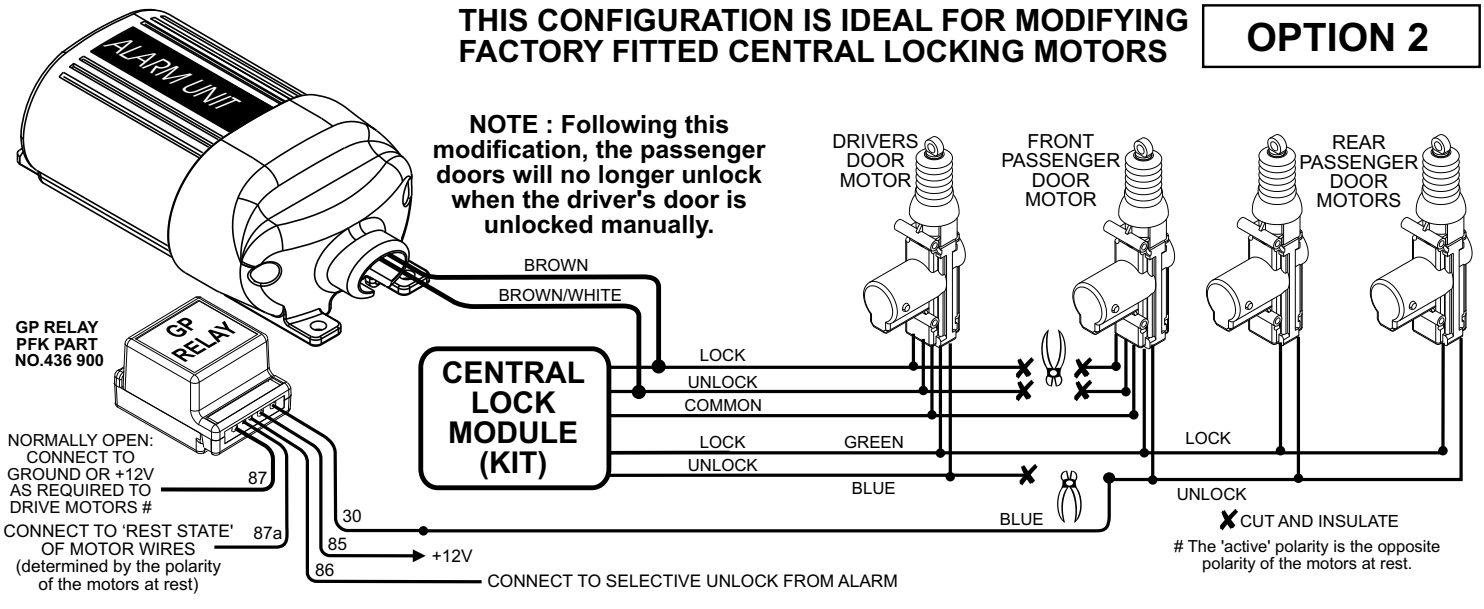
OPTION 1 (B)



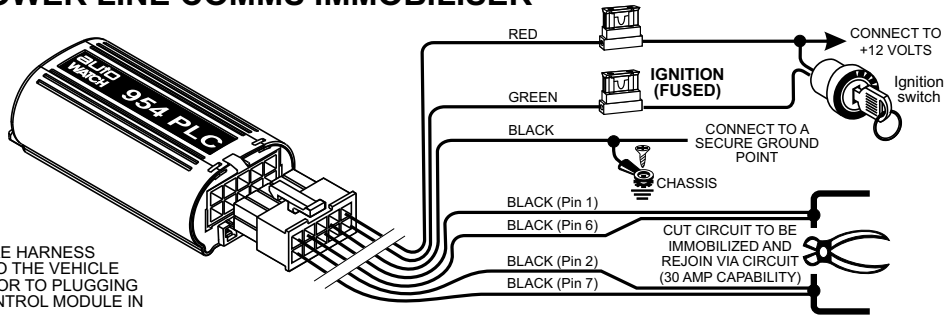
THIS CONFIGURATION IS IDEAL FOR MODIFYING FACTORY FITTED CENTRAL LOCKING MOTORS

OPTION 2

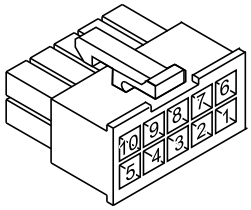
NOTE : Following this modification, the passenger doors will no longer unlock when the driver's door is unlocked manually.



POWER LINE COMMS IMMOBILISER



REAR VIEW OF 10-WAY HARNESS



1. (Black wire) Join with black wire from pin 6.
2. (Black wire) Join with black wire from pin 7.
3. Not used
4. Not used
5. Ground (Black wire)
6. (Black wire)Join with black wire from pin 1.
7. (Black wire)Join with black wire from pin 2.
8. Not used
9. Ignition (Green wire)
10. +12V (Red wire)