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FPA

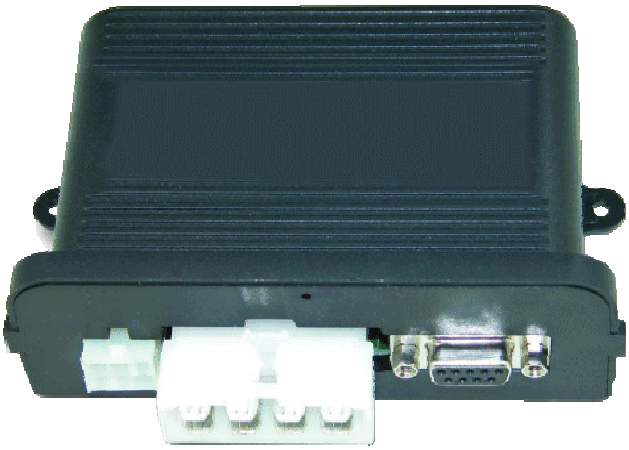
N517

FINGERPRINT ENGINE IMMOBILISER

Introduction:

This state-of-the-art product has been designed for people who want an engine immobiliser that does not require a remote control or the need to remember a PIN number to deactivate. It is best suited to vehicles already fitted with a remote keyless entry or alarm system, where adding a high security, independent immobiliser is beneficial. It aims to prevent the theft of your vehicle even if your car keys with remote attached have been lost or stolen.

This product should be installed in accordance with the wiring methods & principles detailed in Australian Standard AS 3749.2:1997



Instruction Manual

Rev 1.0

Thank you for purchasing a quality RhinoCo Engine Immobiliser. Please read this manual carefully before commencing installation and keep it in a safe place for future reference.

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Features

- Microprocessor Controlled
- Two Point Engine Immobilisation (Onboard Relays)
- Auto Immobilise (Passive Arming) 10 seconds After Ignition Off
- Can Store Up To 30 Individual Fingerprints
- Valet / Service Mode
- Ultra-Bright Red Flashing LED Light
- Negative On Alarm Output for Optional Siren
- User programmable Override PIN code

Auto Immobilise (Passive Arming)
The immobiliser will always automatically activate 10 seconds after the ignition is turned off. The red warning LED will begin to flash once per second once the system has armed. The vehicle cannot be started now unless a valid fingerprint is entered.

Valet / Service Mode
This mode is designed to allow you to temporarily override the systems normal arming function to allow people to drive your vehicle without the need to add their fingerprints to the systems memory. You would normally activate this feature when your car is being serviced, so that anyone necessary can drive your car.

Override PIN Code
The system has a user-programmable 4 digit override PIN code. This code will enable you to start the vehicle if the fingerprint reader fails to identify a pre-programmed print for any reason.

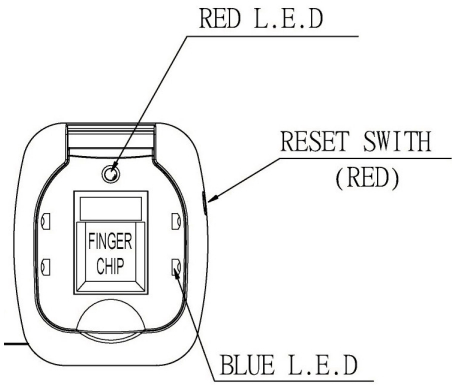
Alarm System Features (Optional)

- Door Protection - if immobiliser is not disarmed within **?** seconds of opening a door, the siren will sound.

Optional Accessories

- Backup Battery Siren (Part No: SBB)
- Internal Cabin Siren (Part No: DPS)

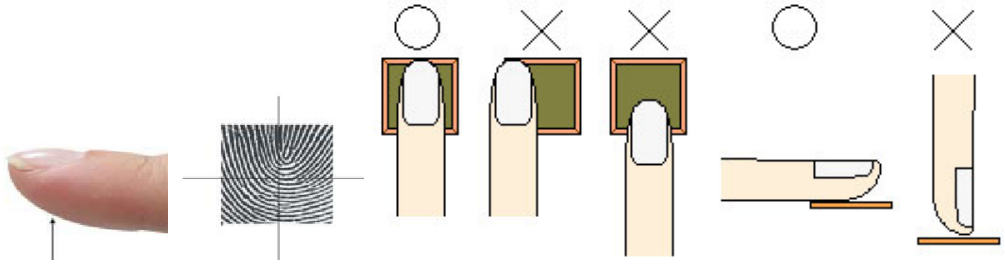
Arming And Disarming Your Immobiliser



To Arm Your Immobiliser
The immobiliser is activated simply by turning the vehicle's ignition off. The red LED warning light will begin to flash after 10 seconds.

To Disarm Your Immobiliser
Open and close the driver's door i.e. enter your car **or** switch the car's ignition switch to the accessory position. Now place your finger on the fingerprint reader chip for a few moments until you hear the buzzer chirp. The red warning light will stop flashing. **THE IMMOBILISER IS NOW OFF.**

Note: For best fingerprint authentication result, please keep the same position on the sensor each time. See images below.



Valet Mode

This mode is designed to allow you to temporarily override the systems normal arming function to allow people to drive your vehicle without the need to add their fingerprints to the systems memory. You would normally activate this feature when your car is being serviced, so that anyone necessary can drive your car.

Please follow the procedure below to enter "Valet Mode".

1. Red LED is flashing once per second (system is armed)
2. Enter your Override PIN code.
3. The Blue LED will flash 3 times.
4. Now press and hold the RESET SWITCH for over 5 seconds.
5. The Red LED will now stay illuminated.
6. The system is now in "Valet Mode"
7. To Escape "Valet Mode", press and hold the RESET SWITCH for 5 seconds.
8. The system will return to the normal armed state.

Override PIN Code

- Your selectable PIN Code is made up of 4 numbers. The range that can be chosen from for each number of the code is from 1 to 255. Hence, the maximum combination of codes available is 255 x 255 x 255 x 255=4,228,250,625.
- You can set up the PIN Code yourself, and you can choose from one to four numbers (the more numbers, the more secure).
- Your PIN Code is very important. Once you reset the number from the factory default PIN number of 5, make sure you remember your new PIN or record it in a safe place.

How to Enter Your Override PIN Code

Note: The factory default PIN Number is 5. To change this number please refer to the Section "How To Change Your Override PIN Code". In this example the owner has already changed their PIN to 3-7-1-2.

1. Red LED is flashing once per second (system is armed)
2. Push and hold down the RESET SWITCH.
3. Now count the red LED flashes from when the RESET SWITCH is held down, and release when you reach the number of the first digit of your PIN i.e for the example pin of 3712, wait for 3 flashes and then release the RESET SWITCH.
4. Now press and hold down the RESET SWITCH, count the red LED flashes, and release when you reach the number of the second digit of your PIN i.e for the example pin of 3712, wait for 7 flashes and then release the RESET SWITCH.
5. Now press and hold down the RESET SWITCH, count the red LED flashes, and release when you reach the number of the third digit of your PIN i.e for the example pin of 3712, wait for 1 flash and then release the RESET SWITCH.
6. Now press and hold down the RESET SWITCH, count the red LED flashes, and release when you reach the number of the fourth digit of your PIN i.e for the example pin of 3712, wait for 2 flashes and then release the RESET SWITCH.
7. The system will now disarm and you can drive your vehicle.

How To Change Your Override PIN Code

Note: The factory default PIN Number is 5.

1. Red LED is flashing once per second (system is armed)
2. Enter your old PIN Code as per the procedure above "How To Enter Your Override PIN Code".
3. The Red LED will turn off.
4. The blue LED will then flash 3 times.
5. Now turn your vehicle ignition key to the ACCESSORY position.
6. To set up the first number of your new PIN Code, press and hold down the RESET SWITCH until the Red LED begins to flash.
7. The Red LED will flash once per second. Make sure you keep count of these flashes.
8. One flash means number 1, two flashes means number 2, and so on.
9. Release the RESET SWITCH when the desired number for the first digit of your new PIN is reached. You may choose a number anywhere from 1 up to 255.
10. The Blue LED will now flash an equal number of times to the number you have just selected as confirmation.
11. The first digit of your PIN Code is now programmed.
12. If you want to utilise a 2-4 digit PIN Code, repeat steps 6 to 11 three times.
13. Once you have finished entering your new PIN Code, turn the vehicle's ignition to OFF.
14. Programming is now complete.

Learning Procedure For Adding Fingerprints

Your FPA is capable of storing up to **30** fingerprints in its memory. To add a new fingerprint/s, simply follow the procedure below:

1. Red LED is flashing once per second (system is armed)
2. Now input your override PIN Code. (The default factory pre-set PIN Code is 5)
3. The Blue LED will flash 3 times.
4. Now press and release the RESET SWITCH once.
5. The system will now enter “Learn Fingerprint” mode.
6. The buzzer makes two sounds, one short sound and one long sound.
7. The buzzer will make another short sound after 3 seconds.
8. Now press the CHIP with your finger & hold. You will hear a short sound – this means the system is learning your fingerprint.
9. Once the system has correctly memorised your fingerprint, the buzzer will give a long sound. You may now remove your finger from the reader.
10. To add a second person’s fingerprint, put the second person’s finger on the CHIP. You will hear a short sound.
11. Once the system has correctly memorised the second fingerprint, the buzzer will give a long sound. You may now remove your finger from the reader.
12. Repeat steps 8 and 9 for any additional fingerprints you would like to add (maximum 30).
13. Once you have finished adding fingerprints, simply wait until the Red LED begins to flash. The system has now exited learning mode and returned to the armed state.

Procedure For Deleting All Stored Fingerprints

Note: When this procedure is carried out, ALL fingerprints will be deleted.

1. Red LED is flashing once per second (system is armed)
2. Turn Ignition key to ACCESSORY position and then to off. The buzzer will make a sound and the Blue LED will stay illuminated.
3. Press and release the RESET SWITCH 15 times.
4. After 10 seconds the Red LED and Blue LED will flash once per sec, then the system will enter deletion mode.
5. The buzzer gives a sound every 3 seconds, up to 32 times. It may take upto 100 seconds to delete all fingerprints stored.
6. Once deletion is completed, the system will return to the normal armed state.

Warranty Terms & Conditions

RhinoCo Technology (The Company) warrants its products to be in conformance with its own plans and specifications and to be free from defects in materials and workmanship under normal use and service for 12 months from the date stamp control on the product, or for products not having a date stamp, for twelve months from the date of original purchase unless the installation instructions or catalogue sets forth a shorter period, in which case the shorter period shall apply.

The Company's obligation shall be limited to repairing or replacing, at its option, free of charge for materials or labor, any part which is proved not in compliance with The Company's specifications or proves defective in materials or workmanship under normal use and service.

The Company shall have no obligation under this Limited Warranty or otherwise if the product is altered or improperly repaired or serviced by anyone other than The Company.

For warranty service, return freight prepaid to:
RhinoCo Technology, 9 Hannabus Place, McGraths Hill, NSW, 2756 Australia.

There are no warranties, expressed or implied, of merchant ability, or fitness for a particular purpose or otherwise, which extend beyond the description on the face hereof. In no case shall The Company be liable to anyone for any consequential or incidental damages for breach of this or any other warranty, express or implied, or upon any other basis of liability whatsoever, even the loss or damage is caused by its own negligence or fault.

The Company does not represent that the products it sells may not be compromised or circumvented; that the products will prevent any personal injury or property loss by burglary, robbery, fire or otherwise; or that the products will in all cases provide adequate warning or protection.

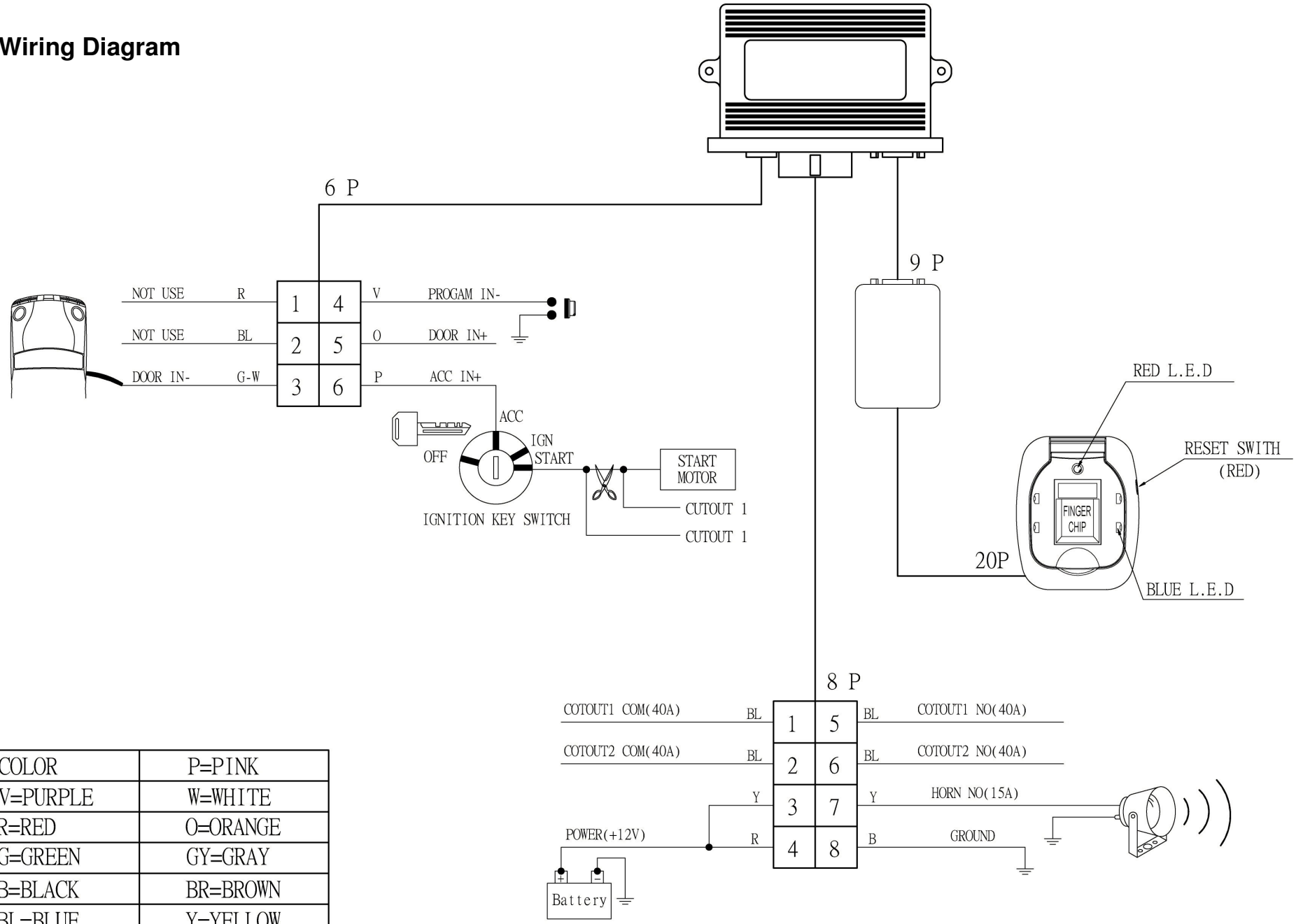
The Customer understands that a properly installed and maintained alarm system may only reduce the risk of a burglary, robbery, or fire without warning, but it is not insurance or a guarantee that such will not occur or that there will be no personal injury or property loss as a result. Consequently, The Company shall have no liability for any personal injury; property damage or other loss based on a claim the product failed to give any warning. However, if The Company is held liable, whether directly or indirectly, for any loss or damage arising under this limited warranty or otherwise, regard less of cause or origin, The Company's maximum liability shall not in any case exceed the purchase price of the product, which shall be the complete and exclusive remedy against The Company.

This warranty replaces any previous warranties and is the only warranty made by The Company on this product. No increase or alteration, written or verbal, of the obligations of this Limited Warranty is authorised.

Wiring Information

Connector Number	Colour	CONNECTION
6 Wire Connector Block		
1	Red	Not used
2	Blue	Not used
3	Green/White	Negative Door Switch Input. Most vehicles use negative door switching. If your vehicle uses positive switching, do not use this wire - connect the +ve door switch wire instead.
4	Purple	Negative Program Input. Factory Use Only.
5	Orange	Positive Door Switch Input (Optional – only use if your vehicle has a positive switching door circuit)
6	Pink	Positive Ignition Accessory Wire Input. Connect to the switched accessory wire in your vehicle's ignition system.
8 Wire Connector Block		
1	Blue	Immobiliser Cutout 1. Locate the vehicle's starter motor wire. It is usually located under the steering column of the vehicle. This wire must be +12 Volts only when the vehicle is being started. Cut this wire. The vehicle should not start. Solder the starter motor side to this wire. NOTE: For safety purposes, under no circumstances should you cut the vehicle's main ignition system. To confirm that you haven't cut the ignition wire: while the system is armed, make sure that your dash warning lights still come on (illuminate) when you turn the ignition to the ON position.
2	Blue	Immobiliser Cutout 2. Locate the vehicle's fuel pump wire. This wire should be +12 Volts only when the vehicle is running / ignition is on. Cut this wire. Solder the fuel pump side to this wire.
3	Yellow	+12VDC. Connect to constant +12 volts via the fuse box.
4	Red	+12VDC. Connect to constant +12 volts via the fuse box.
5	Blue	Immobiliser Cutout 1. Solder the other side of the starter motor wire you have cut to this wire.
6	Blue	Immobiliser Cutout 2. Solder the other side of the fuel pump wire you have cut to this wire.
7	Yellow	Positive Siren Output (Optional)
8	Black	Ground. Connect to a suitable earth on the vehicle's body.
9 Pin Serial Cable		Connect to Fingerprint Reader Module.

Wiring Diagram



COLOR	P=PINK
V=PURPLE	W=WHITE
R=RED	O=ORANGE
G=GREEN	GY=GRAY
B=BLACK	BR=BROWN
BL=BLUE	Y=YELLOW