OPERATION INSTRUCTIONS FOR

TPI

TRANSPONDER IMMOBILISER v4

12VDC

A.C.N 001 621 610

Features:

- All Microprocessor Controlled
- Two Solid State Transponders (up to 4 can be utilised)
- Red Flashing LED Light
- Two Point Engine Immobilisation (30A onboard relays)
- Passive Arming (15 seconds)
- Very Low Current Consumption <16mA
- Uses TIRIS Radio Frequency Identification (RFID) System
- Transponder Operation Range 10-15 cm
- Transponder Storage Temperature: -40°c - +100°c
- Transponder Protection Class: Waterproof
- Main Module Operating Tempertaure: -20°c - +85°c
- Transponder Typical Read Time: 0.1sec
- Ability to erase lost transponders / learn in new .

TO ARM/DISARM IMMOBILISER

The immobiliser will automatically activate 15 seconds after the ignition is switched off. The red dash LED-light will start to flash – indicating that the system is now armed.

To deactivate the immobiliser, the transponder must be within range of the reader within 20secs of turning the ignition to on. The system will recognise the correct code & disarm immediately. The LED will cease to flash. If an intruder attempts to activate the vehicles ignition circuit (i.e. hotwire the vehicle), the optional siren will sound 20 seconds after the ignition is turned on, if no valid transponder code is received. The siren will sound in a pulse fashion - 1 second on, 1 second off. The siren will only stop sounding when the ignition is turned to off.

IMPORTANT: Make sure only one transponder is attached to your keyring at any time, otherwise the main unit will be trying to read 2 codes at once, which is not possible.

LEARNING MODE

- Warning this deletes transponders after all 4 memory locations for transponders have been learnt in.
- You must learn in a transponder into all 4 locations of the immobiliser, even if the transponder that you learn in is the same as a previous transponder that was learnt in.

Note: If no transponders are learnt in after 10 seconds after entering Learning Mode, the immobiliser will exit Learing Mode without removing previously existing transponders.

If you loose a set of your car keys, and you wish to erase a lost transponder / learn in a replacement - simply follow the procedure below:

A. Sit in your vehicle with all doors closed. Turn the ignition to on to disarm the immobiliser, then switch ignition to off.
B. Now open & close your drivers door.
C. Now turn the ignition from off to on, 20 times within 20 seconds (finishing in the off position). Remove your keys from the ignition keyswitch, taking the transponder attached to your keys out of reading range i.e. more than 15cm. The LED will flash a few times to confirm that you have entered the learning mode.
D. Wait for the LED to stop flashing, then bring the first transponder you wish to use with the system into range of the inductive coil i.e. within 10cm of your ignition keyswitch. The LED will flash once to confirm that this transponder code has been learnt into memory location 1. Remove from range and bring into range the second transponder that you wish learn in.

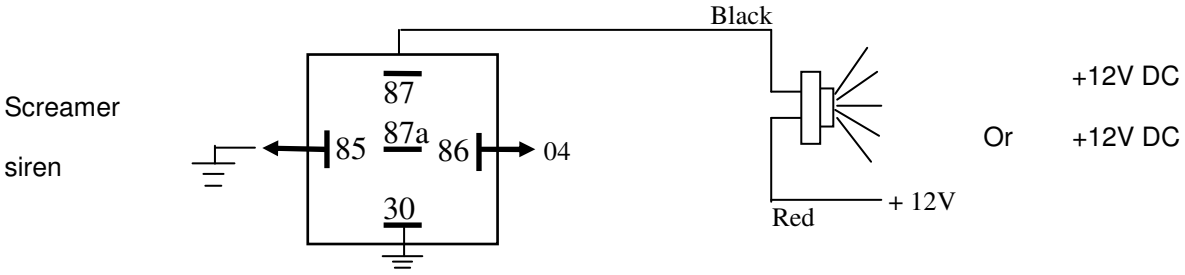
Once again the LED will flash to confirm that this transponder has also been learnt. Repeat by inserting new or previous transponders two more times to fill all 4 memory locations. All 4 transponders memory locations must be learnt into to complete learning mode whether you learn in 2 or 3 of the same transponders or if they are all separate transponders.

REMEMBER all previous transmitters prior to entering learn mode will be deleted.

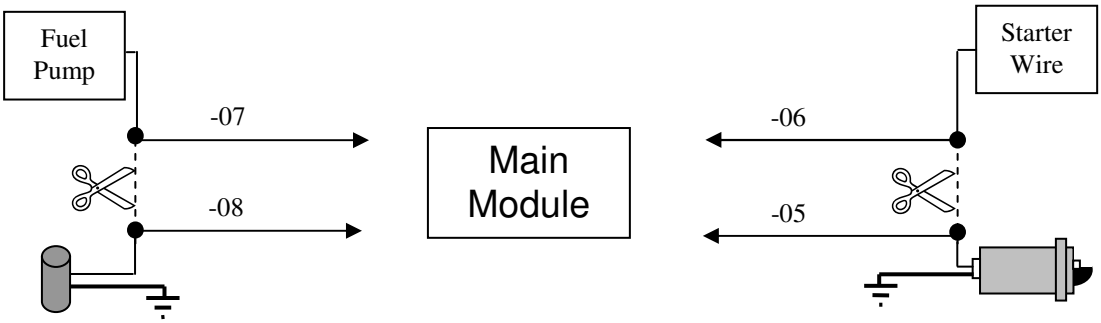
E. 10 seconds after the last transponder has been presented, the system will automatically exit and return to armed mode.

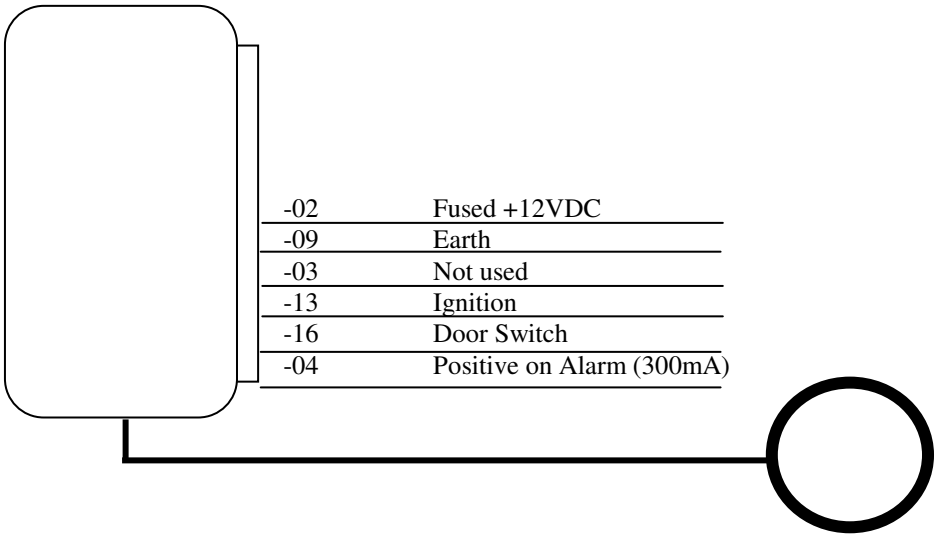
NOTE: The above procedure will only work if you have a working transponder available. If not then the unit must be returned to RhinoCo Technology Service Department to have new Transponders assigned to the unit.

TPI WIRING INSTRUCTIONS

Number	CONNECTION
-02 with Fuse	Power Wire: Connect to constant +12 volts (min 15 amps) via the vehicle's fuse box.
-09	Earth Wire: Connect to a suitable earth on the car body.
-13	Ignition Sense Wire: Connect to a +12 volts ignition switched lead, which does not fall to 0 volts when the engine is cranked.
-05 & -06	Immobilisation Circuit 1: Locate the positive feed wire to the starter solenoid, cut that wire and join wire tagged "-05" to one side of the starter feed wire which you have just cut. Join the other wire tagged "-06" to the other side of the starter feed wire which you have just cut. Warning: cut out relays have 30A 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.
-07 & -08	Immobilisation Circuit 2: Locate the positive feed wire to the fuel pump, cut that wire and join one wire tagged "-07" to one side of the fuel pump wire which you have just cut. Join the other wire tagged "-08" to the other side of the fuel pump wire which you have just cut. Warning: cut out relays have 30A 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.
-04	Positive on Alarm Wire - pulsing 1 sec on, 1 sec off (300mA max) Connect to the positive trigger wire on an optional siren. If the system is armed, this wire switches from rest to earth if a transponder code is not received within 20 seconds of turning the ignition to on. The LED will firstly flash 10 times for pre-warning before the siren will sound. To cancel the siren, turn the ignition to off. 
-03	Not Used
-16	Connect to existing door switches. Please note: only negative switching doors, if positive door switching - must use relays to reverse to negative.

Other cutting Options are to Cut the Auto Transmission Inhibitor Switch Wire, or Clutch Depressed Sense Wire (i.e. vehicles that require the clutch to be depressed before the vehicle will start), or cut circuit in vehicle that isolates engine via wire from vehicle fusebox (no greater than 15amps)





-02	Fused +12VDC
-09	Earth
-03	Not used
-13	Ignition
-16	Door Switch
-04	Positive on Alarm (300mA)

Reading Loop Antenna. Mount in close proximity to ignition barrel behind dash. (Transponder attached to keyring must be no more than 10-15cm from reading loop to operate).

Security Override Procedure

1) Open Drivers door and leave open
2) Turn Ignition on
3) Wait 30 seconds. LED should begin to flash slowly
4) Once LED has flashed 6 times, turn ignition off.
5) LED should start to flash normally again. Wait 1 second.
6) Repeat steps 2 to 5 another 4 times.
7) Turn Ignition on.
8) System should now be disarmed. You must start your vehicle within 30 seconds, otherwise the immobiliser will automatically rearm.
9) If you turn the ignition off you will need to repeat this procedure every time you wish to start your vehicle.

Please Note: The door wire must be connected to the negative side of your door switches and the ignition sense wire must be connected to a +12 volt ignition switched lead which doesn't drop to 0 volts whilst the engine is cranking for this procedure to work correctly.