

THE IMMOBILIZER

Always on Guard

Installation and Operation Manual

Introduction

The Immobilizer 85 is a universal immobilization system which will keep any 12-volt circuit disconnected until it is activated. When activated, the Immobilizer 85 will complete any circuit and enable power to flow to the components. In order to meet Canadian Immobilizer standards it is necessary to protect three circuits on your vehicle. Two of these **MUST** be either the ignition coil, starter solenoid, or the electric fuel pump which will prevent the vehicle from being started. The third circuit must **NOT** be a safety related circuit and would normally be the fuel pump. In the event that your fuel pump is mechanical it will be

necessary to protect a different circuit such as the engine CPU supply.

Once connected, the Immobilizer 85 can be mounted and hidden almost anywhere inside the vehicle – except the engine compartment. The Immobilizer 85 must be activated by the supplied remote control in order to operate the vehicle. If you cannot operate the immobilizer you cannot start the vehicle.

Preparations

**CAUTION: DISCONNECT THE
NEGATIVE (-) TERMINAL ON
THE VEHICLE BATTERY
BEFORE BEGINNING ANY
INSTALLATION**

To simplify installation, inspect and identify the wiring of the starter motor, the ignition coil, fuel pump and the horn or flashers and read these instructions fully

prior to installation. Be sure the wiring can reach all of the identified wires and that the immobilizer is placed away from moving parts and sources of extreme heat. Decide where you wish to mount the control box but do not mount until you are confident that it has been installed correctly. Remember that if you need to program new transmitters or delete old ones from the memory then you will need to remove the box and open it – see programming later.

Technical Note: All wires should be soldered in position and protected with black heat shrink tubing or electrical insulation tape.

1: Ignition coil interrupt

A: Locate the true ignition wire that runs from the ignition key to the ignition coil.

Technical note:

There are a number of ignition circuits today with various wiring configurations: some vehicles have a single wire attached to positive (+) side of the coil; others may have a few wires running into the coil.

Use a multi-meter or computer safe test light to determine which wire is the POWER SUPPLY WIRE. The meter should read +12Volts or test light should illuminate when the ignition key is in the 'ON' position.

B: Now cut this true ignition wire, leaving an ample length of wire on both sides of the cut and connect the Immobilizer's PROTECT #1 IN (**Wire number 3**) and PROTECT #1 OUT (**Wire number 2**) to the cut ends of the power supply wire. Be careful to connect the right way round – from the ignition KEY to wire number 3 (IN), from wire number 2 (Out) to the ignition Coil

2: Starter interrupt

A: Locate the vehicle starter solenoid.

This is a box or junction point where the battery's red cable ends. If your vehicle's battery cable runs from the battery to a post nearby, trace the large red cable from that point to a box on the engine. Locate the smaller wire that runs from starter solenoid to the ignition key on the steering column.

B: Disconnect power supply wire (the smaller wire that runs from the starter solenoid to the ignition).

Reconnect the negative terminal on the battery and confirm engine does not start by trying to start the vehicle. If you have disconnected the correct power supply wire, the vehicles engine will NOT start. After confirming that the vehicle

will not start, disconnect the battery's negative terminal again and reconnect the power supply wire.

C: Now cut the identified power supply wire to the starter solenoid, leaving an ample length of wire on both sides of the cut and connect the Immobilizer's PROTECT #2 IN (**Wire number 5**) and PROTECT #2 OUT (**Wire number 4**) to the cut ends of the power supply wire.

3: Fuel Pump (or other component) Interrupt

A: Locate the vehicles fuel supply pump (OR OTHER COMPONENT) wires and identify the positive (+ve) input to it.

B: Cut this positive (+ve) wire leaving an ample length of wire on both sides of the cut.

C: Connect the wire on the supply side of the cut wire to the Protect #3 IN. **(Wire number 6)** and the wire running back to the fuel pump (or other component) to the Protect #3 OUT **(Wire number 7)**.

4: Status indicator wiring

The status indicator automatically sends a signal when the immobilizer is activated and when the immobilizer passively protects your vehicle. In order to see or hear the signal, you can connect to the horn circuit or the flasher circuit.

A: Locate the vehicles horn or flasher circuit relay and establish which connection activates the circuit – check by attaching a wire to the positive side of the battery and touching the connection – if it is the correct one the horn will sound or the lights will flash.

B: Connect the STATUS IN **(Wire number 8)** wire of the status relay to a positive connection from the battery – this can be the same connection as the control box positive connection.

C: Connect the STATUS OUT **(Wire number 9)** wire to the identified connection on the horn or flasher unit.

Technical Note: Some vehicles operate the horn by connecting to the negative side of the battery – if this is the case with your vehicle follow the same instructions, but connect the IN side to the negative terminal rather than the positive one.

5: Receiver Control Box Power Wire Connection

Technical Note: Prior to actual installation, clean the battery posts to ensure good connection.

A: Connect the Ground, Negative (–VE) -12V **(Wire number 10)** to a suitable vehicle grounding point

This should be done first, and can be attached to an existing ground screw or to the negative (-) post on battery.

B: Connect the POSITIVE (+VE) +12V **(Wire Number 1)** to the positive (+) side of battery or to an accessory junction that has a continuous power supply.

6: Operation

After all connections are made and checked, the vehicle should not start. If the vehicle starts regardless of the immobilizer being installed, it has been installed backwards. Check the wiring again to make sure the connections have been made in accordance with the instructions.

To start the vehicle press the button on the key fob (key chain transmitter) and start the vehicle in the normal way. This activates The Immobilizer and connects the interrupted circuits for 30 seconds during which the vehicle will be able to start.

After the 30 second time window:

A: If the vehicle has not been started, the circuits will automatically disconnect and leave the vehicle immobilized again.

B: If the vehicle has started the circuits will remain connected until the ignition is switched off.

C: When the vehicle is switched off the circuits automatically disconnect after 30 seconds (allowing you to restart the vehicle if it has stalled) thus passively immobilizing the vehicle.

Following successful installation remove ALL the wire labels from the system and securely mount the control box in your chosen position.

7: Programming transmitters

The Immobilizer allows for the 'learning' of additional key chain transmitters (maximum 8) and the deletion of all 'learned key chain transmitters' It is necessary to open the Control Box in order to program new transmitters. Remove the four screws from the underside of the box, turn it over and carefully open the top of the box. Be careful with the rubber seal running around the inside of the box. Replace the top carefully when done, taking care to fit the seal properly, turn over and refit the four screws.

DO NOT REMOVE ANY FURTHER ITEMS OR YOU WILL VOID THE WARRANTY

Deleting all

Transmitters: On the Control box circuit board there is a small push button switch. Press and hold this switch down for about seven seconds. The LED next to the switch will come on whilst you are holding the button down. After about seven seconds it will flash five times. Remove your finger before the last flash and all current transmitters are now deleted from the system.

Learning New

Transmitters: Using the same switch, quickly press and release the button. This puts the receiver in program mode for 16 seconds. During this time up to 8 transmitters can be programmed to work with the receiver by

simply pressing the button on each key chain transmitter. Each time you press a transmitter button the LED will flash off then on again indicating that it has been programmed. After 16 seconds the learn mode will finish and the unit will switch back to operation mode.

Transmitters can be programmed or deleted prior to installation of the receiving control box by connecting power wires (**wire numbers 1 and 10**) to a 12 volt car battery and following the above instructions.

NOTE: After the receiver has learned 8 transmitters, the next one programmed (#9) will replace the first one (#1). Number ten (#10) will replace number two (#2) etc.

**** Transmitters included have been factory programmed, there is no need to go through**

this process unless you need to remove these or add new.

WARNING: DO NOT LEAVE SPARE TRANSMITTERS ANYWHERE INSIDE YOUR VEHICLE.

Wiring layout from Control Box

8: Maintenance

The control box has no user maintainable components inside and should only be opened for reprogramming new transmitters or deleting lost ones.

The transmitter has a replaceable battery. When the battery becomes low the LED will not flash on the transmitter. Remove the small

Wire Number	Name	Function
1	POSITIVE (+VE) +12V	To Vehicle +12V Continuous supply
2	PROTECT #1 OUT	To Ignition coil
3	PROTECT #1 IN	From Ignition Key
4	PROTECT #2 OUT	To Starter Solenoid
5	PROTECT #2 IN	From Starter Solenoid
6	PROTECT #3 IN	From Fuel Pump supply
7	PROTECT #3 OUT	To Fuel Pump
8	STATUS IN	From Battery positive +12V
9	STATUS OUT	To Horn or Flasher
10	NEGATIVE (-VE) -12V	To Vehicle Ground/Earth/Negative

screw from the back of the transmitter; slide the metal casing off to reveal the battery and circuit. Be careful not to damage the

circuit when removing the old battery and replacing the new. Refit the metal case and fix the screw back in position. The LED should now flash when the button is pressed. The transmitter has no other user maintainable parts.

Warning:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.