

## LifeBelt© presents its Seat Belt Management System

With the passing of a new federal law requiring all motorists to have their seat belts fastened while driving, LifeBelt© has developed an exciting new product to ensure that all drivers fasten their seat belts before starting their car engine.

A sensor is easily attached to the seat belt latching mechanism, and an actuating device to the seat belt near the seat belt clip. When the seat belt is inserted into the latch a radio signal is sent to the Ignition Controller Unit (mounted under the dashboard) which enables the engine to start. For youth drivers, there is an additional feature to disable the car radio if the seat belt is not fastened.

Operation is simple, and effective. The driver seat belt MUST be fastened before the motor will start. When the ignition switch is turned on, if it the seat belt has not been fastened, the motor start will be prevented and an audible alarm is sounded. With the seat belt fastened motor start is permitted. Should a seat belt be removed, for SAFETY reasons, the motor will continue to run, but, an audible alarm will sound, and the radio will be disabled. When the seat belt is re-fastened the alarm will silence and the radio will be enabled again.

For cold weather starts, a provision has been provided to allow normal operation of the engine until a temperature of 41 degrees F is reached. At that time an audible alarm will sound, and the radio inhibited. The motor will continue to run. This enables cold weather starts and engine warm-ups via remote control.

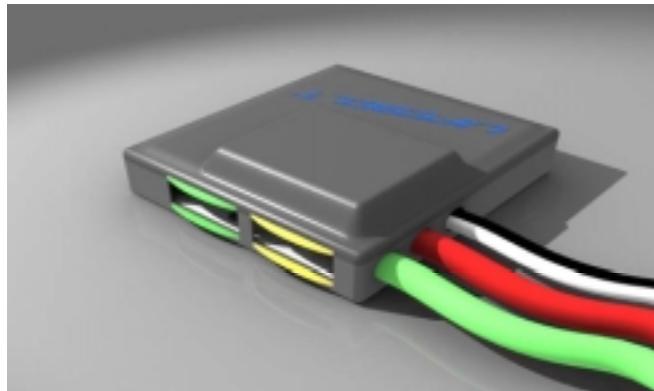


Figure 1 Ignition Control Unit

Installation is accomplished by following 10 easy steps, and can be completed in approximately 10 minutes.

### **Installation of the Ignition Controller Unit:**

1. Remove all the components from the shipping container; verify that the kit is complete.

2. Be sure the ignition is turned off.
3. Attach the **RED** & **BLACK** from the Ignition Controller Unit by fastening the Black wire with ring-tong connector to the vehicle ground. Use a screw that is attached to the car body to fasten the lead to ground. Attach the Red wire clip onto one leg of the DOME LIGHT fuse, and re-insert the fuse back into the fuse panel.
4. Remove the “IGNITION” fuse from the fuse panel and insert this fuse into the fuse holder marked IGNITION on the Ignition Control Unit. Insert the **GREEN** cables from the Ignition Controller Unit into the vacated ignition fuse position in the vehicle fuse panel. Turn the ignition switch to the ON position. The Ignition Controller Unit should begin to beep. If the Ignition Controller Unit buzzes while beeping, remove the cable from the fuse panel, rotate it 180 degrees and re-insert. The unit will not be damaged if the **GREEN** wires are plugged in backwards, but will not function properly unless they are properly connected as indicated above.
5. If you wish to use the RADIO feature, turn the ignition switch off. Remove the radio fuse from the fuse panel and insert it into the fuse holder marked RADIO in the Ignition Controller Unit. Turn the ignition switch to the ON position. Attach the **YELLOW** wires into the vacated Radio Fuse holder in the vehicle fuse panel with the radio turned on. Should the relay and or radio buzz while the alarm is beeping reverse the polarity of the yellow wires in the fuse block. The unit will not be damaged if the **YELLOW** wires are plugged in backwards, but will not function properly unless they are properly connected as indicated above.
6. Fasten the Ignition Control Unit under the dash by either pealing the double sided tape from the back of the Ignition Controller Unit and pressing the unit firmly to a flat clean surface under the dash to mount the Ignition Control Unit, or using the provided cable ties to fasten the unit in place. Be sure and dress the wire antenna (single 6” wire) away from other wires and metal objects. Keep the antenna straight as possible.
7. There is a Emergency Bypass Switch on the side of the Ignition Controller. To bypass the Ignition Controller Unit, remove the cover over the switch and slide the actuator away from the LED. This switch is set in the enable position at the factory.

Installation of the Ignition Control Unit is complete.

#### **Installation of the Remote Switch Unit:**

1. Fasten the Remote Switch Unit to the seat belt latch receptacle. Position the Ignition Controller Unit so the LED is facing in the direction of the seat belt when

fastened (usually pointing up). Thoroughly clean the surface of the seat belt latch, peal off the double sided tape, and press firmly on the Remote Switch Unit with the LED end as far as possible towards the seat belt when fastened.

2. Fasten the Remote Switch actuator to the seat belt with the seat belt clip fully engaged into the seat belt latch receptacle. Position the Sensor device close as possible to the RF Switch Sending Unit. As you move the Sensor device closer to the RF Switch Sending Unit, the LED will illuminate indicating it is functioning. When the seat belt Senor device is secured properly, remove the seat belt from the latch, the LED will illuminate again indicating the seat belt has been unfastened. When the LED extinguishes, re-insert the seat belt into the latch. The LED will illuminate once more, and enable the vehicle to start when the ignition key is turned.

### **Operational alarms:**

Alarm sounds that will be heard during LifeBelt© operation.

When the seat belt is fastened, the driver will here three tones in a short, long, short sequence. This signifies that the seat belt has been fastened.

When the seat belt is unfastened the driver will here three tones in a short, short, short sequence. This signifies that the seat belt has been unfastened

This same sequence will be also heard about 15 seconds after the ignition switch has been turned off, signifying that the unit has timed out and is ready for another ignition sequence.

### **Operational Verification:**

With the ignition switch off, look under the dash at the bypass switch panel. The LED should be extinguished.

Turn on the ignition switch. With the seat belt unfastened. The LED will remain extinguished but an alarm will sound indicating that the seat belt is not fastened. If the radio is on, it will be silenced.

Fasten the seat belt. The LED should Illuminate, the alarm will silence, and the radio if turned on it will begin to play. When the seat belt is fastened the operator will here a series of tones (short long short) signifying that the seat belt has been fastened.

When the vehicle is running, remove the seat belt. An audible alarm should sound, first three short beeps then a normal beeping alarm sound. If the radio function has been installed the radio will be disabled. Fasten the seat belt again, three tones (short long short) will be sounded and the alarm will silence, and the radio will be enabled.

After the vehicle has started, turn off the vehicle. A few moments later the audible alarm should sound with three short tones, indicating it has timed out. This is a feature that will enable the driver to attempt a restart should the vehicle not start on the first try. The operator will then have a few moments to try starting the engine again. If it does time out, merely re-fasten the seat belt to enable the Ignition Control Unit for vehicle operation.

### **Specifications:**

The Remote Switch runs on batteries. They should run with normal use for 1 yr. The battery is mounted in a battery socket enabling replacement. After the transmitter is activated, the transmission will cease operation within 5 seconds after activation.

The Unit will function from -20 degrees C to 85 degrees C.

Power consumption of the Ignition Control Unit is less than 60ma in the inhibited mode and less than 25ma in the enabled mode. This is not enough power drain to effect the vehicle battery to affect operation. For long storage periods, removing the battery terminal is recommended by most automobile manufacturers.

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### **Interference:**

As with any radio device there is the possibility that spurious radio signals may affect operation. The robust design of the Ignition Control Unit radio system has been optimized to prevent this condition and is extremely unlikely that the unit operation will be compromised.

In an emergency, a bypass switch on the Ignition Control Unit will allow the engine to start and function.

## REMOTE SWITCH UNIT FCC CERTIFICATION

FCC ID: SPJH628528427-101 Remote Switch Unit

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.

### INSTRUCTION TO THE USER

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
  
- Connect the equipment into an outlet on a circuit different from that to which the affected receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This equipment has been certified to comply with the limits for a class B computing device, pursuant to FCC Rules. In order to maintain compliance with FCC regulations, shielded cables must be used with this equipment. Operation with non-approved equipment or unshielded cables is likely to result in interference to radio and TV reception. The user is cautioned that changes and modifications made to the equipment without the approval of manufacturer could void the user's authority to operate this equipment.

## DECLARATION OF CONFORMITY

<b>TRADE NAME:</b>	LifeBelt Ignition Control Unit
<b>MODEL NUMBER:</b>	H628528427-101 Ignition Control Unit
<b>COMPLIANCE TEST REPORT NUMBER:</b>	(COMPATIBLE ELECTRONICS REPORT NUMBER)
<b>COMPLIANCE TEST REPORT DATE:</b>	(DATES OF COMPLIANCE TESTING - SEE REPORT)
<b>RESPONSIBLE PARTY (IN USA):</b>	LIFE BELT LLC.
<b>ADDRESS :</b>	7656 West Sahara Ave.
<b>TELEPHONE:</b>	(702) 304-9004

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If the unit does cause harmful interference to radio or television reception, please refer to your user's manual for instructions on correcting the problem.

I the undersigned, hereby declare that the equipment specified above conforms to the above requirements.

Place: Las Vegas, Nevada

Signature: *Thomas D. Wing*

Date: November 30, 2004

Full Name: Thomas D. Wing  
Position: Consulting Engineer