This device complies with FCC Rules part 15. Operation is subject to the following two conditions, (1) This device may not cause harmful interference and, (2) This device must accept any interference that may be received, including interference that may cause undesired operation.

The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

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KEYCOUNTER™
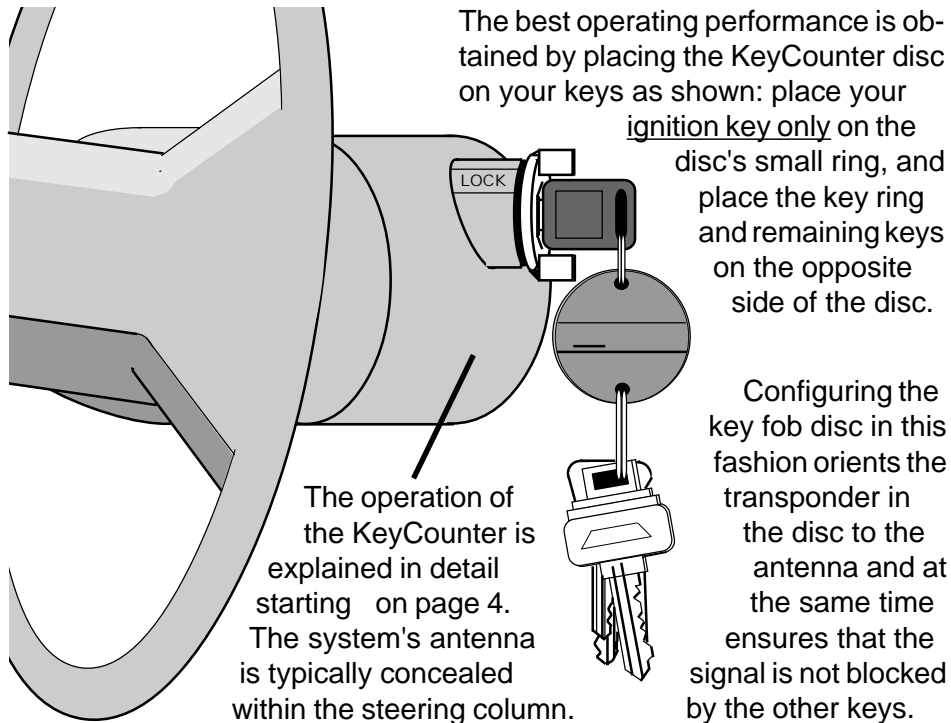
AntiTheft Protection You Can Count On!

Passive Immobilizer Antitheft System

OWNER'S MANUAL

Model: **KEY-3.1**

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The best operating performance is obtained by placing the KeyCounter disc on your keys as shown: place your <u>ignition key only</u> on the disc's small ring, and place the key ring and remaining keys on the opposite side of the disc.

Configuring the key fob disc in this fashion orients the transponder in the disc to the antenna and at the same time ensures that the signal is not blocked by the other keys.

The operation of the KeyCounter is explained in detail starting on page 4. The system's antenna is typically concealed within the steering column.

5) Again present the Red Programming disc to the antenna; the Status Light will go out momentarily to indicate the disc's code is retained as the Programming disc. The Status Light returns to solid Red. Remove the Red Programming disc from the antenna.

6) Now present the first Black Daily Use disc to the antenna; the Status Light will momentarily go out, then return to solid Red.

7) Repeat the previous step for each additional Black Daily Use disc.

After 10 seconds of no further disc presentations, the Status Light will change from solid Red to solid Orange, which indicates the exit from programming mode and the start of the normal engagement process. If all five code slots are filled, i.e.- one Red disc and four Black discs, the Status Light's change from Red to Orange will occur as soon as the fifth disc is presented.

Note: The KeyCounter system has a special antenna which is designed to be mounted behind the steering column trim panel, below the ignition switch. If the vehicle's steering column structure allows optimal antenna placement, when the transponder disc is placed within approximately three inches of the antenna, the radio transmissions between the disc and control module are made and the vehicle is allowed to start. If the door circuit wire is connected, the radio transmissions will occur as the key is being inserted into the switch.

About the KeyCounter™

Congratulations on your choosing the most innovative and user-friendly antitheft system available. The Omega KeyCounter™ Passive Antitheft System utilizes state-of-the-art Radio Transponder technology incorporated with the patented ATV™ unauthorized controller protection feature.

With your KeyCounter system you received a special key fob, or "disc", to be used with your car's key. After KeyCounter is installed, every ignition key which will be used to start your vehicle must have its own disc attached. Each KeyCounter disc contains a "transponder", a miniature radio receiver and transmitter device, which communicates with a control unit installed in the vehicle. **The KeyCounter control unit will not allow the starter to engage unless it receives an authorized digitally-encoded radio signal from your key fob disc**.

With KeyCounter installed, even a correctly-cut key will no longer start your car. In everyday use, KeyCounter shows how many authorized discs, thus keys which are able to start the car, that are encoded into its memory. This is the "Active Transponder Verification" feature, or "ATV". To further protect against tampering, for 48 hours after any disc programming activity, the system's status light changes to an eye-catching multicolored display as a warning.

You will be surprised at KeyCounter's no-hassle, user-friendly design, serious antitheft security, and ease of operation. The disc/transponders have no moving parts, need no batteries, and when in use need no special actions by the user.

Some important things note to before beginning the programming procedure:

- When additional Daily Use discs are added, any original disc(s) must also be reprogrammed. Have all discs at hand, but away from steering column (in which the KeyCounter's antenna is typically mounted; see note on next page).
- Before starting, temporarily remove the Black Daily Use disc from the ignition key, or use an extra key that does not have a disc attached. When the ignition switch is turned on in step 2, a disc must not be close to the antenna.
- Once programming has started, each successive step must be performed within 10 seconds of the previous step.

Programming procedure:

1) While the system is in an armed state (flashing Red Status Light), press and hold the Valet/Override Switch; the Status Light changes to flashing Green. Do not release the Valet/Override Switch.

2) Turn the ignition switch "on"; the Status Light changes to solid Red. Now release the Valet/Override Switch.

3) Present the Red Programming disc to the antenna; the Status Light changes to solid Orange. Remove the Red Programming disc from the antenna.

4) Turn the ignition switch off; the Status Light changes to solid Red.

Each KeyCounter system includes two key fob discs: a Black "Daily Use disc" and a special Red "Programming disc". KeyCounter can have up to four Black Daily Use discs programmed to operate it, in addition to the one Red Programming disc. As it is required to program additional or replacement daily use discs to operate the system, the Red Programming disc should be kept in a safe place.

Additional daily use discs are readily available, and the Red Programming disc, if needed, may be used in an emergency in place of a Black Daily Use disc. If the original Red key fob is lost, the system's control module must then be returned to the factory for reprogramming. The KeyCounter also has two other components which involve the user's interaction: a system Status Light and a Valet /Override Switch.
These are typically mounted in a small housing within sight and reach of the driver.

Using the KeyCounter™

No special action is required to engage, or disengage, the KeyCounter system. Upon turning the ignition switch off, the starter circuit will automatically be immobilized 20 seconds later. This 20 second period is indicated by the Status Light illuminating Orange. When the 20 second period expires, the starter circuit is immobilized, as indicated by the Status Light changing to flash Red once every second. The Status Light will flash Red at all times while the starter immobilizer circuit is engaged, as both an indicator of the system's immobilized starter status and also as a visual theft deterrent. While the KeyCounter is in this state, the engine

The KeyCounter system will stay in Valet Mode until it is removed from Valet Mode. To remove the system from Valet Mode, turn the ignition switch on, then press and hold the Valet/Override Switch. The Status Light will briefly illuminate Orange, and then go out. Normal operation will now resume: turning off the ignition switch results in the Status Light illuminating solid Orange for 20 seconds indicating impending engagement, then changing to flashing Red indicating that the starter is immobilized. While the Status Light is solid Green the vehicle can still be started. Once it changes to flashing Red, the vehicle cannot be started.

How to Program KeyCounter™ Key Fob Discs

Each KeyCounter system comes from the factory with two key fob discs. The Black disc is for "Daily Use", and the Red disc, which is a special disc. The Red disc is used for "Programming", but it can be used in place of the Daily Use disc in an emergency. **As the Red disc is essential to programming the KeyCounter, it should be kept in a secure place**. If the original Red key fob is lost, only by returning the control module to the factory can it be re-configured for programming.

KeyCounter can have up to four Black Daily Use discs programmed to operate it, in addition to the one Red Programming disc. Additional Black Daily Use discs are readily available, and adding extra or replacement discs is not difficult. Before beginning programming, have the Red Programming disc at hand along with all Black Daily Use discs which are to operate the system.

To place the system into Valet Mode, which will also permit the starting of the vehicle without having a key fob disc present, perform the following steps:

1) Enter the vehicle; the system is engaged, as indicated by a flashing Red Status Light. If the door detection circuit is connected, the Status Light will change to solid Red when the door is opened. If not, the Status Light remains flashing until the following step.

2) Use the ignition key to turn the ignition switch on. The Status Light will change to solid Red (if not already solid Red from the door detection circuit) indicating that system is actively seeking a key fob disc. When the Status Light is solid Red the vehicle will not start.

3) Press the Valet/Override Switch 3 times. The Status Light will briefly change to solid Orange before extinguishing completely. The system is now in Valet Mode, and the vehicle may be started. As an indicator of Valet Mode, when the ignition switch is turned off, and while it is off, the Status Light will be solid Green.

The system is now in Valet Mode, and the starter interrupt circuit no longer engages automatically every time that the ignition switch is turned off. Please note that if the vehicle will be left with someone, and it is desired to place the system into Valet Mode, simply allow the system to engage, then perform the System Override to obtain Valet Mode.

cannot be started; if an attempt is made to start the vehicle, the starter will simply not operate. Any such failed starting attempt will result in the Status Light illuminating solid Red as soon as the ignition switch is turned to the "on" or "run" position. This serves as a warning of the no-start condition, and also to indicate that the system is in the process of "seeking" an authorized key fob disc. Please note that an installation option allows for the vehicle's dome light circuit to initiate the KeyCounter's seeking of the disc; if so the Status Light changes from flashing Red to solid Red as soon as the door is opened. In this case, the exchange of the digital signal between the disc and the KeyCounter occurs much faster; typically before the key is even inserted into the ignition switch.

However, when a starting attempt is made with an authorized key fob disc, the Status Light will change from flashing Red to a flashing of Green for 10 seconds (except during the ATV warning period- see page 7). When the Status Light changes to flashing Green, it is important to note that the KeyCounter is actually indicating two conditions:

First, the starter circuit is no longer immobilized, and the engine can be started.

Second, note that the Green flashes occur as a series of flashes between pauses. This is the ATV operation; the number of flashes is the number active transponder discs, hence keys, which are able to successfully start the vehicle.

To summarize the KeyCounter's basic operation and indications:

Solid Orange Status Light indicates that the KeyCounter is in the automatic process of immobilizing the starter.

Flashing Red Status Light indicates that the starter is immobilized.

Solid Red Status Light indicates that the KeyCounter is seeking a transponder disc and the starter is still immobilized.

Flashing Green between pauses Status Light indicates that the KeyCounter has detected the presence of an authorized transponder disc, and the vehicle can be started.

To better understand Active Transponder Verification (ATV), consider that your system includes two discs- the Red Programming and Black Daily Use discs. Therefore, every time the ignition switch is turned on, and the exchange occurs between the disc and the KeyCounter, the Status Light changes from solid Red to two Green flashes between pauses for a 10 second period. The two Green flashes represent the two discs; if for example an extra Black Daily Use disc was added, the Green flashes would be three times between pauses. As the KeyCounter can have as many as four Black Daily Use discs in addition to the Red Programming disc, ATV could be as many as five Green flashes between pauses.

ATV Warning

For the first 48 hours after the KeyCounter is installed, or for 48 hours after any key fob disc programming activity, the Status Light will have a different operation when the ignition switch is turned on, and the disc/control unit exchange occurs. During this initial period, the ATV display is extended to 90 seconds, and **the Green flashes are against a Red background color**. This eye-catching display is a warning that key fob disc programming activity has recently taken place.

ATV, or Active Transponder Verification, is an exclusive patented feature. Although similar antitheft systems are available, even as factory-equipped systems, only KeyCounter indicates how keys can actually start your vehicle.

System Override and Valet Mode

Your KeyCounter system includes a push-button Valet/Override Switch. This switch can be located on the bottom of an included Status Light and Valet/Override Switch combination holder; or, the installer has the option of mounting it in a hidden, but accessible location. The Valet/Override Switch, used in conjunction with the ignition key, may be used to override the system by placing it in Valet Mode should the KeyCounter disc become lost or stolen. **As long as the system is in Valet Mode, the automatic engagement of the system will not occur**. Therefore, in addition to providing an emergency override function, Valet Mode is used to prevent the KeyCounter's automatic engagement during times when it may not be desired.