One or more of these patents may apply to this product:
#5,612,669 #5,654,688 #5,663,704 #5,729,191 #5,818,329 #5,612,578 #5,739,747 #382,558 #385,878 #5,750,942 #5,739,748 #5,719,551 #406,107 #701,285 #5,973,592 #5,982,277 #5,986,571 #6,011,460 #6,037,859 #6,049,268 #6,130,605 #6,130,606 #6,140,938 #6,140,939 #6,150,926 #6,144,315 #6,184,780 #6,188,326 Foreign Patent #199700312 #EP0817734B1 #98906445.6 #2,320,248 #701,285

If additional or replacement transmitters for your Excalibur ATV-1000 are desired, please legibly fill in the order form below. Cut out the order form, enclose a check or money order in the correct amount, (Please remit $ 35.00 for each transmitter ordered) and mail to:

Omega Research and Development, Inc.
P. O. Box 508
Douglasville, Georgia   30133

The correct transmitter for your Excalibur ATV-1000 is "#143-03".

Table Of Contents

Please spend time reviewing this guide to become familiar with your new Excalibur ATV-1000 vehicle security and convenience system. You will find that your new system will give you years of trouble-free convenience and protection. To learn how to operate your system, please become familiar with the following three principal user components: the Remote Transmitter, the Red LED Status Light and the Valet Switch.

The Remote Transmitter: Each system is capable of being operated by up to four different remote transmitters. The remote transmitter has four push-button switches, each having a pictograph as to function. The basic operations are:

- The "**arm/lock**" button arms the security system, which can also lock the doors.* This button is also used to operate the "remote panic" feature with locking doors.
- The "**disarm/unlock**" button disarms the security system, and can unlock the doors.* This operation can be configured to unlock the driver's door only upon one press of the button; then, if desired, all of the doors upon a second press of the button. This button also operates the "remote panic" feature with unlocking doors.
- The "**channel 2**" button is used to operate an additional remote control function such as trunk release, and to also silently arm or disarm the system.
- The "**panic**" button operates the remote "Panic" feature without locking or unlocking the doors.

   * Please note that the vehicle must have power doorlocks. In some vehicles, direct power doorlock connections may made, and in other vehicles an optional power doorlock interface may be required.

Remote Transmitter Operations

Pressing and releasing the "**arm/lock**" button arms the security system and locks the doors. Pressing and holding this button for three seconds will first arm, and then activate the Panic feature, locking the doors.

Pressing and releasing the "**disarm/ unlock**" button disarms the system and unlocks the doors unless the system is activated. The unlock operation may be configured so that pressing this button once disarms the system and unlocks only the driver's door, and pressing a second time unlocks all of the doors.

Pressing and holding this button for three seconds will first disarm, and then activate the Panic feature, unlocking the doors.

Pressing the "**channel 2**" button for two seconds can be used to activate an output for an optional function such as trunk release.

Pressing and releasing this button twice arms or disarms the system without the confirmation chirps.

Pressing the "**panic**" button for three seconds will activate the Panic feature, but without locking or unlocking the doors.

Transmitter part number: #143-03

The Red LED Status Light: Informs you of the different conditions the security system can be in and also serves as a visual deterrent to break-ins and theft.

The Valet Switch: In "every day" operation, the Valet Switch is used to place the system into "Valet Mode". Valet Mode can be used to turn off automatic functions, such as Last Door Arming or Automatic Rearming, and also prevents arming the system via remote transmitter. The Valet Switch is also used, with the ignition key, to disarm the security system in the event the transmitter becomes inoperable, and this switch is also used in the procedure for programming features and programming transmitters.

Arming The System Using The Transmitter

Arming The Security System Using The Transmitter: The security system can always be armed from the transmitter, provided the ignition key is "off" and the system is not in the Valet Mode. To arm the system, after you exit the vehicle and close all of the doors, simply **press and release the "arm/lock" button once**. The parking and interior lights will flash once, the siren will chirp once and the LED Status Light will begin to flash, confirming that the system is armed. In addition, the doors will lock and the starter interrupt will engage to prevent any attempt to start the vehicle. Your security system is now fully armed, and is ready to respond if an intrusion attempt is detected.

Please note that the Excalibur's separate "**arm/lock**" and "**disarm/unlock**" button design allows repetitive operation- if already armed, pressing the "**arm/lock**" button will simply rearm the system, and vice versa when pressing the "**disarm/unlock**" button.

Arming Bypass: Upon arming, if any sensing circuit is inoperable, that circuit only will automatically be bypassed. When an unsecured system circuit is in a bypassed state, all other operating circuits will be protected normally. For example, should the trunk be open, you can still arm the system with the transmitter. Should the bypassed circuit become secured, it will automatically be reinstated for protection 5 seconds later. When certain protection circuits are bypassed, such as the hood/trunk and optional sensor, when the system is armed, it will indicate this by chirping the siren three time and flashing the parking lights three times instead of the normal arming indication of one each. Arming Bypass will only operate when arming the system with the transmitter.

Sensor By-Pass: Your security system provides you with the convenience of temporarily deactivating any added optional auxiliary sensor without affecting the other trigger circuits. To deactivate the sensor, simply press and release the transmitter's "**channel 2**" button within three seconds after pressing the "**arm/lock**" button when arming the system. You will hear a second siren chirp confirming that the security system has armed without the sensor protecting the vehicle. The next time the security system is armed normally with one "**arm/ lock**" button press, the sensor will again be part of your protection.

Passively Arming The System

Automatically Arming The Security System Using "Last Door Arming": For maximum protection, the Excalibur can also automatically arm itself and lock or not lock the doors. This feature is programmable, and may be configured to operate if desired.

When the vehicle's last door is closed the siren will chirp once, the parking and interior lights flash once and the LED Status Light will begin to flash rapidly. Thirty seconds later the siren will chirp and the lights will flash again, the doors will lock (which is separately programmable) and the LED Status Light will slow to a steady flash, confirming that the security system is fully armed. If a point of entry is reopened before the single siren chirp at 30 seconds, the Last Door Arming process stops, and will reset to start over when the point of entry is again closed. All protected entries must be closed to initiate the Automatic Last Door Arming sequence. Automatic Last Door Arming offers a high level of security, since you do not have to remember to arm the security system every time you leave the vehicle, and may entitle you to an insurance discount (please check with your agent or carrier).

To temporarily prevent the system from automatically Last Door Arming, you have these options: put the system in Valet Mode (page 13-16), leave the door open, or, in most cases turning on the dome light may cause the system to detect that your door is still open. Leaving the ignition key turned "on" is not recommended.

Security System Armed, & Triggered

While the security system is armed, the LED Status Light is always flashing. Should any intrusion attempt occur, the system will instantly "trigger", and once triggered, will respond by **sounding the electronic siren; flashing the parking and interior lights on and off; and relocking the doors** when the system is first triggered. Should a door be opened, the system will wait until the door is closed, and at that time relock the doors so that a thief cannot easily regain entry to the vehicle.

The siren will sound and the parking and interior lights will flash for 60 seconds unless you disarm the system with the transmitter or the Valet Switch and ignition key. If all protected entries are secure at the end of 60 seconds, the system will stop and rearm to detect further entry attempts. If there is a protected entry still open or if an optional sensor is still in a triggered state at the end of 60 seconds, the system will reactivate for two more 60 second cycles. In this case the system will stop after a total of 3 minutes and rearm automatically, while ignoring only the open entry or triggered sensor. When the entry is closed or the triggered sensor is reset, protection will begin instantly for the formerly affected circuit.

Once the security system has been activated and reset, the disarming confirmation will no longer be 2 siren chirps, and the parking and interior lights staying on. Instead, the system will respond with 4 siren chirps and the parking and interior lights flashing 4 times before staying on for 30 seconds. The LED Status Light will change to flashing one to four times between pauses to indicate which protection circuit triggered the system. These audible and visual indications will remain this way until the ignition is turned "on".

Anytime the security system triggers, the LED Status Light will indicate which zone triggered the system by flashing one to four times, pausing between flashes. This code will continue to flash, even after disarming. The system can hold two different violation codes in it's memory, which is cleared by turning the ignition switch "on".

Safety Disarm/Storm Mode: While the system is activated, i.e. sounding the siren and flashing the lights, pressing the "**disarm/unlock**" transmitter button will <u>disarm the system, but not unlock the doors</u>. This safety feature ensures that the vehicle remain secure should

the system require disarming due to being activated from nuisance or malicious false sensory inputs, such as typically produced by severe weather conditions. To remotely unlock the doors if the system is disarmed while activated, simply repeat the disarm operation by pressing and releasing the "**disarm/unlock**" transmitter button again. If disarmed from a panic mode, the normal disarm indications are present, including the unlocking of the doors.

Disarming The System

Disarming The System Using The Transmitter: While the security system is in the armed state, **pressing and releasing the transmitter's "disarm/unlock" button once** will instantly disarm the system and unlock the doors. If you have the optional unlock driver's door feature, then upon disarming only the driver's door will unlock, and if the transmitter's "**disarm/unlock**" button is pressed again at anytime thereafter, all of the doors will unlock. Whenever the system is disarmed, pressing the "**disarm/unlock**" button unlocks the doors.

Disarming is confirmed by the siren chirping twice, and the parking and interior lights turning on for 30 seconds. However, the lights will turn off instantly if the ignition switch is turned "on". If the system was triggered and reset while you are away, the disarm confirmation will change to 4 siren chirps, 4 light flashes, and then the lights will stay on for 30 seconds. The security system will have this response upon disarming until the ignition switch is turned "on", which clears the unit's memory.

Automatic Rearming Feature: Should you unknowingly press the transmitter button, which results in your system disarming, the system will automatically rearm itself 90 seconds later and once again lock the doors. This feature is programmable, and may be turned on if it is desired.

Automatic Rearming can be paused by opening the door or stopped by turning "on" the ignition switch. Also, Automatic Rearming can be cancelled by the Safety Disarm/Storm Mode feature; if the system is disarmed while triggered, Automatic Rearming will not occur. Automatic Rearming is confirmed by a fast flashing LED Status Light after disarming, unless the system was triggered, in which case a Zone Violation code will flash instead.

Remote Panic Feature

Remote Panic Activation From The Transmitter: Should you feel threatened, or the need to attract attention, you can activate your system's remote "Panic" feature at any time by depressing and holding the "**panic**", "**arm/lock**" or "**disarm/unlock**" transmitter button for 3 seconds. Your system will respond by sounding the siren and flashing the exterior and interior lights for the normal activated period of 60 seconds. Activating Panic with the "**panic**" button will not affect the doorlocks; activating it with the "**disarm/unlock**" button will unlock the doors; activating it the "**arm/lock**" button will lock the doors. To disengage Panic, simply press and release either the "**panic**", "**arm/lock**" or "**disarm/unlock**" transmitter button.

Once remote Panic is activated, after 60 seconds, the system will stop and reset. Otherwise, if you wish to stop the Panic feature during the 60 second period, press the

"**panic**", "**arm/lock**" or "**disarm/unlock**" button. When turning off Panic mode from the transmitter, pressing "**arm/lock**" to stop Panic will leave the system armed with locked doors, and pressing "**disarm/unlock**" will leave the system disarmed with unlocked doors, and pressing "**panic**" will leave the system in the same arm/disarm state it was in before Panic was activated, and not lock or unlock the doors.

Optional 2nd Channel and 3rd Channel Output

Optional 2nd Channel Output (Trunk Release): If your vehicle is equipped with *electric* trunk release, your installing dealer can configure your system to perform trunk release from your transmitter. Use of the 2nd channel output is recommended to operate this option; simply press and hold the transmitter's "**channel 2**" button for 2.5 seconds. Your vehicle will respond by releasing the trunk lid or rear hatch, chirping the siren twice, turning on your parking and interior lights for 30 seconds, unlocking the doors, and disarming the system if it was armed. The trunk release will not operate with the ignition switch "on" unless the vehicle's door is open. If desired, the security system can be programmed to remain armed when this feature is used.

Optional 3rd Channel Output: This output's operation is similar to the 2nd channel. To operate it, press and hold the transmitter's "**arm/lock**" or "**disarm/unlock**" buttons together for 2.5 seconds to activate the 3rd channel output. The 3rd channel output will operate regardless of the ignition switch being "on" or "off", and there is no audible or visual confirmation.

Using The Valet Switch

The primary function of the Valet Switch is to place your Excalibur security system into Valet Mode, which prevents it from arming. You will find this useful when stopping at service stations, having your vehicle serviced, having your car valet parked or while having your car washed. The Valet Switch, **in conjunction with the ignition key**, can be used to disarm the system should your transmitter be lost or become inoperable. The Valet Switch is typically mounted in the same housing as the LED Status Light. However, some custom installations may have the Valet Switch mounted in a more hidden location; if so, be sure your installing dealer indicates the location of the Valet Switch to you to avoid potential inconvenience.

Normal Valet Mode: This unique feature can be activated anytime the system is disarmed and allows you to enter the Valet Mode by simply pressing and holding the Valet Switch, provided the system is not armed. If the system is armed or in the triggered state, however, the ignition must be turned "on" and then the Valet Switch must pressed within 5 seconds to disarm the system. Once disarmed, it can be placed into Valet Mode.

While the system is disarmed, simply press and hold the Valet Switch for 2 seconds to activate the Valet Mode. The system will confirm that it is in the Valet Mode by chirping the siren twice, flashing the parking and interior lights twice, and the LED Status Light will illuminate steady Red. The security system will stay in the Valet Mode when the ignition switch is "on" or "off". While in the Valet Mode, although the system will not arm, the transmitters will still operate the Remote Panic feature, the doorlocks, and trunk release; the

doors will also lock when the ignition switch is turned "on" and unlock when it is turned "off". While the security system is in the Valet Mode, every time the ignition switch is turned "off", the siren will chirp once as a reminder.

To turn off Valet Mode, simply press the Valet Switch, and instantly the security system will exit Valet Mode, and the LED Status Light will turn off.

Selectable Code Override- How To Disarm The Security System If The Transmitter Is Lost: In the event the transmitter is lost, damaged, or its battery become exhausted, the Valet Switch <u>and</u> your ignition key can be used to disarm the system In the event the transmitter is lost, damaged, or it is otherwise inoperable, the valet switch **and your ignition key** may be used to disarm the system.   Selectable Code Override offers a high level of security because, in addition to requiring the ignition key, **one to two separate stages of pressing the Valet Switch** may also be custom programmed as a requirement to accomplish the disarming of the system.   Each of these stages may be further customized by programming multiple presses of the valet switch. This programmable feature, which is explained in detail on pages 25-26), allows you to further enhance the effectiveness of your security system by "hardening" its resistance to being defeated. The factory-set default for Selectable Code Override is <u>one</u> press at stage 1, and <u>NO</u> press at stage 2; this is the most convenient and user-friendly setting. Therefore, the following step-by-step instructions reflects first the default setting, and then the following text continues to explain the custom-programmed setting:

Step 1 - While the system in the armed condition, enter via the driver's door. Be aware that the system will activate when the door is opened, sounding the siren, flashing the parking and dome lights, and locking the doors should the door entered be closed again before disarming the system.

Step 2 - Using your key, turn the ignition "on". **The following step must be performed within the next 10 seconds**.

Step 3 - Press the valet switch equal to the number programmed for stage #1; the factory setting is <u>one</u>. *If the factory default setting of 1 and 0 presses is retained, press and release the valet switch once and the system will instantly disarm.* The disarming will be accompanied by two siren chirps.

If stage #2 presses have been programmed, the system will not disarm, but pause and chirp the siren before continuing to sound. **When a stage #2 entry is required, at this point the stage #2 entry must be made within 10 seconds**. If both stage's entries are correct, the system will disarm shortly after the stage #2 entry. After a failed attempt to achieve Selectable Code Override, the ignition switch must be turned "off", then "on" again before another attempt is made. See pages 25-26 for further information on the Selectable Code Override.

Once the system is disarmed, if Valet Mode is desired, just press and hold the Valet Switch for 2 seconds to place the system into Valet Mode. Remember, if the Selectable Code

Override factory setting of "stage #1, one valet switch press and stage #2, no valet switch press" is present, simply pressing the valet switch once within 10 seconds of turning the ignition switch "on" will override and disarm the system.

Red LED Status Light

The LED Status Light is a visual indication of what state the security system is in at any given time. The LED Status Light is normally positioned in a location that is easily observed by the driver. These are the possible conditions that the security system can be in as reflected by the LED Status Light:

1) Off   = The security system is disarmed and not performing any automatic functions.
2) On Constant   = The security system is in the Valet Mode.
3) Flashing Slow   = The security system is armed.
4) Flashing Fast   = The 30 second Last Door Arming feature or 90 second Automatic Rearming feature is in progress.

Zone Violation: If the system is triggered, the LED Status Light will start to flash and pause one of the following sequences to indicate which protected circuit triggered the system. This is seen while the system is armed, and after disarming, until the ignition switch is turned "on", which will clear the Zone Violation code. The unit's memory can store two different violation codes.

5) Flash-2x & Pause	= The security system was triggered from the hood and trunk circuit, or the current sensing circuit.
6) Flash-3x & Pause	= The security system was triggered from the door circuit.
7) Flash-4x & Pause	= The security system was triggered from the Auxiliary Sensor Port circuit.

Automatic Transmitter Verification™: After the ignition is turned "on", the LED Status Light will flash and pause to indicate the number of transmitters programmed to operate your security system. For example: two flashes and pause indicates that only two transmitters are encoded to operate your system. Whenever you leave your vehicle and keys with someone, you will now have the peace of mind in knowing that only your transmitters will operate the security system and that no additional transmitters have been coded into your system for the purpose of stealing your vehicle or its contents. This flashing indication occurs for 10 seconds every time the ignition switch is turned "on".

8) Flash-1x & Pause = 1 transmitter code is stored in the system's memory.

9) Flash-2x & Pause = 2 transmitter codes are stored in the system's memory.

10) Flash-3x & Pause = 3 transmitter codes are stored in the system's memory.

11) Flash-4x & Pause = 4 transmitter codes are stored in the system's memory.

Unauthorized Transmitter Alert: In addition to Automatic Transmitter Verification showing how many transmitters can operate your system each time the ignition is turned "on", your Excalibur security system will also warn you if any transmitter encoding activity

Features Programming Checklist

This checklist helps when programming features. Before attempting feature programming, please carefully read pages 25-31 to become familiar with the features and the programming procedure. Mark each applicable box with "\" next to the feature to be changed before entering Features Programming Mode. As each feature is programmed, change its mark to "X".

Step 1 - Turn the ignition "off", and press the Valet Switch 5 times.

(the system will respond by briefly sounding the siren)

Step 2 - Press the Valet Switch the same number of times as the feature number.

(the system will acknowledge the Valet Switch entry by repeating the same number of chirps)

Step 3 - Press the transmitter's "**arm/lock**" button to turn the feature "on", or press the "**disarm/unlock**" button to turn the feature "off". (turning the feature "on" is indicated by one siren chirp; turning the feature "off" is indicated by two siren chirps)

Repeat - Steps 2 and 3 for each feature to be changed

#	FEATURE	DEFAULT

#	Feature	Default
1	Selectable Coded Override	1 & 0 (see page XX)
2	Last Door Arming	OFF
3	Automatic Rearming	OFF
4	Automatic Starter Interrupt	OFF
5	Doors Lock With Last Door Arming	OFF
6	Doors Lock With Automatic Rearming	OFF
7	Doors Lock With Ignition	ON
8	Ignition OFF Unlock #1	ON
9	Ignition OFF Unlock #2	ON
10	Open Door Bypass To Previous Three Features	ON
11	Confirmation Chirps	ON
12	Confirmation Chirps In Valet Mode	OFF
13	Activated Alarm Cycle	60 Seconds (**"arm/lock"**)
14	Lights On Upon Disarm	ON (**"arm/lock"**)
15	Disarm Alarm Upon Activating 2nd Channel	ON
16	Doorlock Pulse Time	.8 second (**"arm/lock"**)
17	Double Unlock Pulse	OFF
18	Arming Delay	3 Seconds (**"arm/lock"**)
19	Pulsed Horn / Steady Siren Output	Pulsed Horn (**"arm/lock"**)
20	Loud or Soft Confirmation Chirps	Loud (**"arm/lock"**)
21	Total Closure Lock Output	OFF
22	Ignition-Activated Anti-Carjacking Protection	OFF
23	Door-Activated Anti-Carjacking Protection	OFF
24	Transmitter-Activated Anti-Carjacking Protection	OFF
25	Open Door Warning Upon Arming	OFF

has occurred. **For 48 hours after any transmitter is programmed to operate the system, every time the ignition switch is turned "on", the siren will chirp rapidly for two seconds, and the LED Status Light will flash between pauses the number of operable transmitters for 90 seconds.**

In the event the system alerts you to a recent transmitter addition, you can immediately reprogram your transmitters, effectively erasing any unauthorized transmitters. Should you program replacement or additional transmitters to operate your system in the future, the Unauthorized Transmitter Alert will operate for the next 48 hours.

Audible And Visual Indications

The Excalibur security system's audible output and the vehicle's parking and interior lights are utilized to indicate a number of events or processes associated with the system's operation:

1) One siren chirp and one light flash upon closing the vehicle's door: *The system has started a passive Last Door Arming countdown and will become armed after the 30 second countdown expires. This chirp indicates that the starter interrupt will engage and the doors will lock when the alarm becomes fully armed in 30 seconds.*

2) One siren chirp, one light flash, & doors lock: *The system has armed passively or actively from the transmitter. The starter interrupt has engaged and the doors have locked. The optional sensor will become operational 5 seconds later.*

3) One siren chirp after the arming chirp previously mentioned: *The auxiliary sensor circuit is bypassed by pressing the "**channel 2**" transmitter button within 3 seconds of pressing the "**arm/lock**" transmitter button.*

4) One siren chirp, and no light flash, but only at the moment the ignition switch is turned "off": *The system is in Valet Mode, and will not arm actively or passively.*

5) Two siren chirps and the parking lights stay on for 30 seconds:
The system has just been disarmed or 2nd channel output has been activated.

6) Two siren chirps and two light flashes: *The system has been placed into the Valet Mode.*

7) Four siren chirps, four light flashes, and then lights stay on for 30 seconds: *The system has just disarmed and was activated while you were away. The system will have this disarming confirmation until the ignition switch is turned "on".*

8) Siren sounding, changing sounds every 5 seconds, and the parking lights flashing on and off: *The system is in an activated state. This will also relock the doors.*

9) A series of siren chirps lasting two seconds after the ignition switch is turned "on": *The Unathorized Transmitter Alert feature (page 17) has been activated.*

10) Three siren chirps upon arming the system: *The Zone Bypass feature is indicating that the system is arming, but bypassing a violated protected zone.*

11) Three siren chirps while the system is armed: *The Prewarning feature has been activated.*

Auxiliary Shock Sensor With Prewarn

Your Excalibur vehicle security system includes an auxiliary shock sensor which greatly increases the effectiveness of your system. A light shock or impact to the vehicle will initiate the Prewarn feature, while a heavier shock or impact will fully activate the security system. Other sensors are available, including a radar-technology sensor that can detect moving objects inside and outside the vehicle.

The sensor may be temporarily bypassed using the transmitter- within 3 seconds after arming the system, press the "**channel 2**" button. The system will respond with one siren chirp, confirming that the sensor is bypassed. If the system is triggered by the shock sensor, the Zone Violation feature will flash the LED Status Light four times between pauses.

When the sensor is triggered by a light impact or shock to the vehicle, the security system will respond by chirping the siren 3 times and locking the doors. After this circuit has been triggered five times it will automatically shutdown until the alarm system is disarmed, then armed. This will prevent the security system from being a nuisance to the general public, and in some cases to allow compliance with local noise ordinances.

Anti-Carjacking Protection

The Excalibur security system features three optional forms of Anti-Carjacking protection. The Anti-Carjacking features may be activated by turning "on" the ignition switch, opening and closing a door after the ignition has been turned "on", or by the transmitter activating the 3rd Channel output, but only when the ignition is "on".

The Anti-Carjacking feature automatically activates for each of the three described conditions, provided that each has been programmed to operate. In each of the three methods, the vehicle operator has 53 seconds to press the Valet Switch to cancel the Anti-Carjacking feature. If not cancelled, at 53 seconds the siren will start chirping, to remind the operator that Anti-Carjacking will engage. This will continue for 7 seconds, during which time the Anti-Carjacking feature may still be cancelled by pressing the Valet Switch. At 60 seconds, the Anti-Carjacking feature fully engages, sounding the siren and flashing the parking and interior lights. Thirty seconds after the siren sounds and the lights flash, and the starter interrupt will engage. During this 30 second period, if the ignition is turned "off" the starter interrupt will instantly engage.

Once fully activated, the Anti-Carjacking feature can only be deactivated by turning the ignition "off", then "on" again, after which the Valet Switch must be pressed within 5 seconds. When the Anti-Carjacking feature is fully engaged, the system will not respond to the transmitters, nor will it automatically reset after 60 seconds. The Anti-Carjacking operation will continue until deactivated or until the vehicle's battery is drained.

Optional Backup Battery

The Excalibur security system is designed for easy compatibility with a Backup Battery power option. The Backup Battery option will allow the security system to operate its most vital functions even if power is removed from the system's control module or if the vehicle's battery is disconnected. The Omega dealer from which you purchased your vehicle security system can provide more details on the exact operation of the system when it is equipped with this option.

How To Program Transmitters

The Excalibur comes with two pre-programmed transmitters, but as many as four may be used to operate the system. Each transmitter has its own unique and ever-changing digital "code", which is programmed to operate the system by a special "learning" procedure. When adding transmitters to operate the security system, all previous transmitter codes are deleted, so all transmitters which are to operate the system must be programmed at the same time. To program transmitters, follow this process:

1) Have all transmitters which are to operate the system at hand. Turn the ignition "on".

2) Within 5 seconds of turning on the ignition, press the Valet Switch 5 times. The siren will briefly sound, confirming that for the next 10 seconds the system is ready to learn a transmitter code. To enter a transmitter code, simply press and release the transmitter's "**arm/lock**" button (the button which is designed to arm the system). When the first transmitter code is learned all existing stored transmitter codes will be erased.

3) Press the "**arm/lock**" button on each remaining transmitter. The system will chirp the siren once to confirm that each transmitter code was learned. The other three transmitter button's functions will automatically be assigned when the "**arm/lock**" button is learned. If a code is not received within a 10 second period, the learning process will automatically terminate, as indicated by another siren burst.

Programmable Features

The Excalibur vehicle security system has 25 programmable features which allows you to customize your system to fit your personal preferences and needs. This section describes each of features in more detail, and the following section explains the programming procedure. **Please note that an itemized list of the programmable features is found in the centerfold of this booklet as an easy-to-use features programming checklist**.

#1 Selectable Code Override: Default 1 & 0. The valet switch is an important part of your Excalibur system; it allows an emergency override to disarm the system in place of the remote transmitter, and it is crucial to the programming of transmitters and features. Your Excalibur system's advanced design includes this programmable feature, which allows you to configure the valet switch operation for the most convenient ease of use, or for personally-customized maximum security.

The Selectable Code Override must be entered to achieve an override disarming of the system. For a more secure access to an override disarm, the vehicle owner may select two separate stages of valet switch presses, and the number of valet switch presses, from 1 to 9 presses, for each of these stages, which are needed to achieve the successful entry of the Selectable Code Override. The customized number of valet switch presses are chosen by yourself, the vehicle owner, and programmed into the system.

As an illustration of this feature, with the default setting of "one and no presses", to disarm the system without the transmitter, after entering the vehicle, the ignition switch is turned "on", and the valet switch is pressed once, at which time the system will instantly

disarm. With a custom-programmed Selectable Code Override of, for example, "3 and 9 presses", upon entering the vehicle and turning the ignition "on", the valet switch must be pressed three times. This causes the audible output (i.e.- horn or siren) to stop sounding and emit one chirp. The audible output then resumes, and the "stage 2" entry, nine presses must be entered, which achieves an override and disarms the system. However, if either entry is incorrect, the system will not disarm. If a customized valet switch entry is desired for the Selectable Code Override, please note that the "stage 2" is also required.

To custom program the Selectable Code Override from the default setting, follow Steps 1 and 2, on pages 34-35. In Step 2, the valet switch will be pressed once. At Step 3, press and release the transmitter's "**arm/lock**" button a number of times equal to the desired Selectable Code Override for stage 1. The system will respond to each transmitter button press with a siren chirp. After pressing the transmitter button the desired number of times, wait for the system to chirp the siren again an equal number of times. Now press and release the transmitter's "**disarm/unlock**" button a number of times equal to the desired Selectable Code for stage 2. The system will again chirp the siren in the same fashion as the code entered for stage 1.

Should the system have an unknown customized Selectable Override Code already entered, the factory-set default of one press and no press can be obtained by reprogramming this feature.

#2 Last Door Arming: Default OFF. This feature automatically arms the system upon your exiting the vehicle, and is explained in detail on pages 7-8. If desired, having the

doors lock when the system automatically arms may added to this feature's operation. The Last Door Arming feature is independent of the Automatic Rearming Feature.

#3   Automatic Rearming: Default OFF. This feature ensures that your Excalibur system is always armed. It is possible, on occasion, to accidentally and unknowingly disarm the system by having an object press the transmitter button while in a pocket or purse. If this feature is programmed to operate, the system will automatically rearm itself 90 seconds after being disarmed, unless the ignition switch is turned "on" or a door is opened. Also, if feature #6 (Doors Lock With Automatic Rearming) is utilized, the doors will also lock upon the system automatically rearming.

   In daily operation, upon disarming the system, Automatic Rearming is confirmed by a fast flashing LED status light. Once the ignition switch has been turned "on", the system will stay in a disarmed condition until it is armed again from the transmitter or by Last Door Arming. Opening a door will also stop Automatic Rearming; it will be cancelled completely if Last Door Arming is off, and temporarily suspended while the door is open if Last Door Arming is turned on.

#4   Starter Interrupt 90 Seconds After Ignition "Off" Or Disarming: Default OFF.
Activating this feature will cause the Starter Interrupt output to automatically engage 90 seconds after the ignition switch is turned "off", and also 90 seconds after disarming the system. This automatic engagement will occur even if the security system is in a disarmed state, but not if it is in Valet Mode. Once the Starter Interrupt output is activated, the system must be armed, then disarmed with the transmitter, or placed into the Valet Mode

by pressing and holding the Valet Switch for 2 seconds to disengage it.

#5 Doors Lock With Last Door Arming: Default OFF. This feature adds the locking of the doors to feature #2; when the system automatically arms 30 seconds after the vehicle's last door is closed, the doors will also lock.

#6 Doors Lock With Automatic Rearming: Default OFF. This feature adds the locking of the doors to feature #3; if the system is allowed to automatically rearm 90 seconds after being disarmed from the transmitter, the doors will also lock.

#7 Doors Lock With Ignition: Default ON. This feature automatically locks the vehicle's doors 1.75 seconds after the ignition switch is turned "on".

#8 Ignition "Off" Unlock #1: Default ON. This feature automatically unlocks either the driver's door or all of the vehicle's doors instantly when the ignition switch is turned "off". Please note that the exact operating parameters of this feature depends upon the installation configuration of the Excalibur system and your vehicle's power door lock system. As previously noted, this system is capable of being configured to unlock only the driver's door upon disarming. Then, if desired, pressing the transmitter's "**disarm/unlock**" button again anytime thereafter (unless the system is armed again or the ignition switch is turned "on") will unlock all of the doors. Therefore, this feature can operate one of two ways: first, if all of the doors unlock upon disarming the system with the transmitter, this feature will unlock all of the doors when the ignition is turned "off". Second, if

your vehicle is configured to unlock the driver's door only upon disarming, this feature will unlock only that door upon turning the ignition "off". Please consult with the installer as to the feasibility of adding the driver's door only unlock configuration to your vehicle, as power door locking systems differ in compatibility to this feature. If the second configuration discussed above is present, the next feature allows the option of unlocking of all of the doors when the ignition is turned "off".

#9 Ignition "Off" Unlock #2: Default ON. As discussed in the previous feature, your security system is capable of a second door unlock output. If your system is configured to unlock only the driver's door upon disarming with the transmitter, this feature may be utilized. This feature, when activated, will unlock all of the doors, after the driver's door, when the ignition switch is turned "off".

#10 Open Door Bypass To Previous Three Features: Default ON. This feature only operates in conjunction with the previous three feature's ignition-activated door locking operations. Programming this feature on, along with the any of the previous three features, will cancel any automatic doorlock operations associated with the ignition switch if a door is open at the time the ignition switch is turned "on" or "off". For example, if the system is programmed to unlock the doors when the ignition is turned "off", if a door is opened before turning the ignition "off", the doors will <u>not</u> automatically unlock.

#11 Confirmation Chirps: Default ON. This feature removes the audible arming and disarming confirmation siren chirps. This feature is the "full time" removal of the confir-

mation chirps; the silent operation may be achieved on a onetime temporary basis by pressing and releasing the transmitter's "**channel 2**" button twice when arming or disarming the system. Even if this feature is used to remove the confirmation chirps, the audible Unauthorized Transmitter Alert feature will still operate as described on page 17 and 20.

#12 Confirmation Chirps While In Valet Mode: Default OFF. While the system is in the Valet Mode, the transmitter will still remotely lock and unlock the vehicle's doors. This feature adds the confirmation siren chirps if the transmitter is used to lock or unlock the doors while the system is in Valet Mode.

#13 Activated Alarm Cycle 60 or 30 Seconds: Default 60 Seconds. This feature offers a choice of activated alarm durations. When programming, please note that pressing the remote transmitter's "**arm/lock**" button sets the cycle at 60 seconds, and pressing the "**disarm/unlock**" button sets the 30 second time.

#14 Lights On 30 Seconds Upon Disarm: Default ON. This feature turns on the parking and interior lights for 30 seconds after the two light flashes upon disarming the system. This feature allows inspection of the area around and inside the vehicle when approaching in the dark. When programming, please note that pressing the remote transmitter's "**arm/lock**" button sets the lights being on for 30 seconds, and pressing the "**disarm/unlock**" button configures the system to only flash the lights twice.

#15 Disarm System Upon Activating 2nd Channel: Default ON. This Feature automatically disarms the system when the "**channel 2**" button is pressed to operate the optional output, which is typically used for trunk release. If this feature is turned off, the channel 2 output will still operate, but the system will remain armed. When this feature is on, activating the trunk release will be accompanied by two horn chirps and the lights illuminating (if the previous feature is "on") to confirm disarming; when off there are still two confirmation chirps, but no light flashes or illumination.

#16 Doorlock Pulse Time .8 or 3 Seconds: Default .8 Second. Certain vehicle's power door locking systems require a longer output pulse to operate properly. This feature allows the installer the flexibility to accommodate such systems. When programming, please note that pressing the remote transmitter's "**disarm/unlock**" button sets the 3 second pulse, and pressing the "**arm/lock**" button sets the .8 second pulse.

#17 Double Unlock Pulse: Default OFF. This is another power door lock-related feature provided for the installer's use. Some newer vehicles require a double pulse to remotely unlock the doors and/or to disarm a factory-equipped security system.

#18 3 or 45 Second Arming Delay: Default 3 Seconds. Some installation situations require an extra amount of time for the system to become fully armed. Where needed, this feature may be changed to delay the full arming of the system to 45 seconds. Please note when the 45 second arming delay is used, it adds 45 seconds to all three forms of arming:

active arming from the transmitter, Last Door Arming, and Automatic Rearming. When programming, please note that pressing the remote transmitter's "**arm/lock**" button sets the 3 second arming delay, and pressing the "**disarm/unlock**" button sets the 45 second delay.

#19 Steady Siren or Pulsed Horn Output: Default Steady Siren. This feature allows the choice of using the electronic siren for the audible output of the security system or the vehicle's horn. When programmed for use with a vehicular horn, this output pulses for 10 seconds, then pauses for 5 seconds, repeating this cycle for the duration of the activated alarm period. When set for use with the electronic siren, the output is continuous and steady. When programming, please note that pressing the remote transmitter's "**arm/lock**" button sets the pulsed horn, and pressing the "**disarm/unlock**" button sets the steady siren.

#20 Loud or Soft Confirmation Chirps: Default Loud. If the system is configured to use the vehicle's horn, this feature allows a degree of compensation for the variance which is found in the length of the pulse required to chirp the vehicle's horn in a satisfactory manner. When programming, please note that pressing the remote transmitter's "**arm/lock**" button sets the chirp loud, and pressing the "**disarm/unlock**" button sets the chirp soft. This feature is only available for use when the previous feature is programmed for the "Pulsed Horn" setting.

#21 Total Closure Lock Output: Default OFF. If the vehicle is has an existing total

closure feature, this programmable feature allows the installer the option of interfacing the Excalibur system to operate this feature. Typically, this option would close all windows and the sunroof, in addition to locking the doors, when arming the system. Consult with the installer on this option, as the vehicle must be properly equipped to utilize this feature.

#22 Ignition-Activated Anti-Carjacking Protection: Default OFF. Your Excalibur system offers three separate forms of anti-carjacking protection in this and the following two features. When this feature is utilized, you must press the Valet Switch once within 60 seconds after turning the ignition switch "on" and starting the vehicle.

   If this is not done within this period, the system will begin chirping the siren 53 seconds after the ignition was turned "on". These chirps are to warn you that the anti-carjacking protection is about to engage; pressing the Valet Switch before the 60 seconds expires will stop the anti-carjacking protection feature. Once starting, the chirping will last for 7 seconds; unless the anti-carjacking feature is cancelled as described, once 60 seconds has passed from the time the ignition was turned "on", the siren will start sounding fully, and the parking and interior lights will begin flashing. Thirty seconds after this occurs, or if the ignition is turned "off", the starter interrupt circuit will also activate. Once the Anti-Carjacking is fully engaged, i.e. sounding the siren and flashing the lights, the only way to disengage it is to turn the ignition "off", then "on" again, and then press the Valet Switch within 5 seconds.

#23 Door-Activated Anti-Carjacking Protection: Default OFF. This feature's operation is the same as described in the previous section, with the exception of being activated

by the opening of a door while the ignition switch is "on". Once the engine is running, if a door is opened the valet switch must be pressed before 60 seconds expires. Otherwise, the operation of this feature is identical to that described for "Ignition Activated Anti-Carjacking Protection". This, the previous feature and feature #24 are independently programmable, and any of them may be programmed to operate.

#24 Transmitter-Activated Anti-Carjacking Protection: Default OFF. This feature will activate the Anti-Carjacking operation (see feature #22 for Anti-Carjacking operation description) if the transmitter's "**arm/lock**" and "**disarm/unlock**" are pressed together for 3 seconds while the ignition is on.

#25 Open Door Warning Upon Arming: Default OFF. When this feature is programmed to operate, if one of the vehicle's doors is open when the system is armed using the remote transmitter, the siren will chirp 3 times instead of once and the parking and interior lights will flash three times instead of once when arming the system with the transmitter.

How To Program Features

The centerfold of this booklet is an itemized easy-to-use features programming checklist.

Step 1 - Turn the ignition "off", and within 5 seconds press the valet switch 5 times (the system will respond with a chirp, then briefly sounding the siren and flashing the LED Status Light)

Step 2 - Press the valet switch the same number of times as the feature number (the system will acknowledge the valet switch entry by repeating the same number in siren chirps and the LED Status Light flashes a like amount)

Step 3 - Press the transmitter's "**arm/lock**" button to turn the feature ON (one chirp and Status Light on), or press the "**disarm/unlock**" button to turn the feature OFF (two chirps and the Status Light turns off)

Repeat - Steps 2 and 3 for each feature to be changed
If the Valet Switch or a transmitter button is not pressed for any 10 second period, the programming process will terminate, as indicated by a brief sounding of the siren.