LIMITED LIFETIME WARRANTY

Products manufactured and sold by OMEGA RESEARCH & DEVELOPMENT, INC. (the "Company"), are warranted to be free from defects in materials and workmanship under normal use. If a product sold by the Company proves to be defective, the Company will repair or replace it free of charge within the first year and thereafter all parts to be repaired will be free with only a nominal charge for Omega's labor and return shipping, to the original owner during the lifetime of the car in which it was originally installed.

All products for warranty repair must be sent postage prepaid to Omega Research & Development, Inc., P.O. Box 508, Douglasville, Georgia 30133, or send via UPS to: 981 N. Burnt Hickory Rd., Douglasville, Georgia 30134, with bill of sale or other dated proof of purchase. This warranty is nontransferable and does not ap cal misuse or abuse, i intended function, u God.

This w cement of the product. nstallation charges, da idental or consequent product to function p **LD THIS WARRAN STRUED AS A GU OSS.** The Company n make any warranties or assume any liability in connection with the sale, installation, or use of this product.

BACK COVER PRINTER'S NOTE: production back cover is color; this is a place marker cover.

This device complies with F.C.C 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 TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

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

Jan 2009 MO-AL-1510-EDP

Excalibur

AL-1510-EDP

OPERATION MANUAL

FRONT COVER PRINTER'S NOTE: production front cover is color; this is a place marker cover.

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.

Coin batteries used in the transmitter which is used to operate this security system may contain Perchlorate Material - special handling may apply. See www.dtsc.ca.gov/hazardouswaste/perchlorate

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 #6,243,004 #6,249,216 #6,275,147 #6,297,731 #6,320,514 #6,320,498 Foreign Patent #199700312 #EP0817734B1 #98906445.6 #2,320,248 #701,285

Complete Programmable Features Matrix

	Features	Ignition on, off, then press Valet Switch **5** times (Status Light turns on steady).			
#	**Feature**	**Default Setting**	**Option**	**2nd Option**	**3rd Option**
1	SecureCode	1 & 0	2 stages, of up to 9 presses each (total of 99 possible combinations)		
2	Last Door Arming	OFF (L)	ON w/o doorlock (U)	ON w/ doorlock (2)	
3	Automatic Rearming	OFF (L)	ON w/o doorlock (U)	ON w/ doorlock (2)	
4	Starter Interrupt Functions	Alarm only (L)	Off (U)	Automatic (2)	
5	Ignition Activated Override	OFF (U)	ON (L)		
6	Doors Lock With Ignition On	ON (L)	OFF (U)		
7	Doors Unlock With Ignition Off	ON (3)	OFF (L)	o/p 1 only (U)	o/p 2 only (2)
8	Open Door Bypass to above	ON (L)	OFF (U)		
9	Confirmation Chirps	ON (L)	OFF (U)	exc. Valet (2)	Valet only (3)
10	Confirmation Chirp Volume	Medium Loud (2)	Low (L)	Med Lo (U)	Loud (3)
11	Activated Alarm Cycle	30 Seconds (L)	60 Sec. (U)	90 Sec. (2)	120 Sec. (3)
12	Lights On Upon Disarm	ON (L)	OFF (U)		
13	Disarm Upon Trunk Release	ON (L)	OFF (U)		
14	Arming Delay	3 Seconds (L)	15 Seconds (U)	30 Seconds (2)	45 Seconds (3)
15	Steady Siren / Pulsed Horn	Steady Siren (L)	Pulsed Horn Lo (U)	Pulsed Med. (2)	Pulsed Hi (3)
16	Alarm Functions Bypass	OFF (U)	ON (L)		
17	Ignition Anti-Carjacking	OFF (U)	ON (L)		
18	Door Anti-Carjacking	OFF (U)	ON (L)		
19	Remote Anti-Carjacking	OFF (U)	ON (L)		
20	Open Door Warning at Arm	OFF (U)	ON (L)		
21	III Button Operation	3rd Chan. (L)	Panic (U)	4th Chan. (2)	5th Chan. (3)
22	Doorlock Functions	.8 second (L)	3 Seconds (U)	Double Unlock (2)	Total Closure (3)
23	(-) Parking Light Output	Parking Light (U)	Arm (L)	Chan. 4 Latch (2)	Chan. 4 On Demand (3)
24	(-) Horn Output	Horn, med (U)	Disarm (L)	Chan. 5 Latch (2)	Chan. 5 On Demand (3)

installation features

The final 3 Programmable Features are for the installer's use.

Note: Features #23 and #24 involve two outputs of the Excalibur control unit which give the installer greater flexibility. These outputs can be programmed to perform several different functions. The primary function, or default setting, of these outputs are designed to control the vehicles parking light circuit and honk the vehicle's horn.

But there are also several other functions of these two outputs which may be programmed to operate, and more importantly, they must be configured by the installer to perform the desired operations.

Feature #23 (-) Parking Light Output Functions

Factory Default Setting **Parking Light Flash Output**
(press "**disarm/unlock**" button to program)

Options:

OEM Alarm Arm Output (press "**arm/lock**" button to program)
Channel 4 Latch Output (press "**II**" button to program)
Channel 4 On Demand Output (press "**III**" button to program)

The default setting of this feature is to provide a negative flashing light output. Options for this output are a (-) OEM alarm arm output, which is more frequently encountered in newer vehicles. Other options are an additional remote output, operated by the transmitter's "**arm/lock**" and "**II**" buttons together, and in two forms of operation: "Latch", in which the output toggles (i.e.- turns on and turns off) with each buttons press, and "On Demand" which is output occurring while the buttons are being pressed. Feature #21 can change this channel's button assignment.

Feature #24 Horn Honk Output Functions

Factory Default Setting **Horn Honk Output**
(press "**disarm/unlock**" button to program)

Options:

OEM Alarm Disarm Output (press "**arm/lock**" button to program)
Channel 5 Latch Output (press "**II**" button to program)
Channel 5 On Demand Output (press "**III**" button to program)

The default setting of this feature is to operate the vehicle's existing horn; either in conjunction with the electronic siren, or in place of the siren. Using both the siren and the horn creates an extremely effective security system, and be configured in many vehicles without further parts. The remaining options are OEM alarm disarm, and Channel 5, with the same operation parameters as described above for Channel 4, except that the "**disarm/unlock**" and "**III**" buttons operate it, and Feature #21 can also change this channel's button assignment.

This Booklet Contains

Introduction to the System

Congratulations for your choice of the most versatile, fully-featured vehicle security and convenience system available today, the Excalibur AL-1510-EDP by Omega Research and Development. To enjoy the most from your new system, please take a few moments to learn about the principal user components, and the basic operation of the system. These subjects are found in next several pages, followed by more detailed specifics of complete operations and features.

One of the components, typically mounted on the windshield, is the **Window Unit** module which contains the **Status Lights** and the **Valet Switch**. The window unit also receives and transmits the Echo technology communications for the system's 2-way operation.

The Red colored Status Lights report the operational status of the system at all times, and also serves as a visual deterrent to break-ins and theft. Specific description of the Status Light operation may be found on page 16.

The Valet Switch has three main functions:

- The Valet Switch can be used to turn off the system's security functions, including any automatic arming or locking features (if used). Keyless entry functions will still operate. This is placing the system into "Valet Mode".
- The Valet Switch can also be used, in conjunction with the vehicle's ignition key, to perform an emergency disarming of the security system in the event the transmitter or transceiver is lost or becomes inoperable. This is referred to as "performing an Emergency Override".
- The Valet Switch is used in the procedure of programming operational features and also for encoding transmitters and transceivers to the system.

A complete description of the Valet Switch and its operations is on pages 14-15.

The system can operated by two types of devices: the **2-Way Controller** and the **1-Way Transmitter**. Your system comes with one of each of these, pre-learned to operate the system. The controller, in addition to operating your system, also receives signals from the system, and displays a variety of system conditions on its LCD screen. This is the patented Echo 2-way technology. The transmitter will fully operate the system, but it can not receive signals nor report events from the vehicle. Your system can be operated by as many as four controllers and/or transmitters.

The controller and the transmitter both share the same four operational buttons, and their use to operate the Excalibur system is the same. These buttons and a brief description of what they do are:

The final 3 Programmable Features are for the installer's use.

These features are described to explain their function; as these features are dependent upon the installation configuration within the vehicle, they should not be changed except by the original dealer or qualified installer.

Feature #22 Doorlocking Functions (installer feature)

Factory Default Setting **.8 Second Lock & Unlock Output**
(press "**arm/lock**" button to program)

Options:

3 Second Lock & Unlock Output (press "**disarm/unlock**" button to program)
Double Pulse Unlock Output (press "**II**" button to program)
Total Closure Lock Output (press "**III**" button to program)

This single feature gives the **installer** several needed options, to match the security system's doorlocking outputs to suite different vehicle requirements.

- The first setting (programmed by the "**arm/lock**" button) has the system produce both the lock and unlock outputs as .8 second in duration. This is the most common form of output needed, which interfaces most vehicles.
- The second setting (programmed by the "**disarm/unlock**" button) changes the lock and unlock outputs to be a longer 3 second pulse output. This is for certain vehicles which require a longer output pulse, typically cars having pneumatic doorlocking systems, although the longer setting is also more suitable in some newer-model vehicles.
- Some newer vehicles require a double pulse output to remotely unlock the doors and/or to disarm a factory-equipped security system, which is what the Double Pulse Unlock setting provides (it is programmed by the "**II**" button).
- The Total Closure Lock Output (programmed by the "**III**" button) may be used with vehicles which are originally equipped with the total-closure feature. Typically, a total closure feature is when locking the vehicle's doors if the key in the door is held to "lock" for a period of time the vehicle will close all windows and the sunroof, in addition to locking the doors.

Note: When this feature is turned on, during the 28 second period after arming the system, the lock output can be stopped on demand by the user by pressing the "**arm/lock**" OR the "**disarm/unlock**" button. Only the output itself will stop- pressing either button again will normally operate the system, and at any time after the 28 second lock output period ends.

The following two features, when they are set for factory alarm "arm" or "disarm" output operation, will follow the setting of this feature.

Feature #18 Door Activated Anti-Carjacking Protection

Factory Default Setting **Off** (press "**disarm/unlock**" button to program)
Option: **On** (press "**arm/lock**" button to program)

This form of Anti-Carjacking is initiated by a door being opened. The Anti-Carjacking protection, including the three ways to initiate it are described on page 21.

Feature #19 Remote Activated Anti-Carjacking Protection

Factory Default Setting **Off** (press "**disarm/unlock**" button to program)
Option: **On** (press "**arm/lock**" button to program)

This form of Anti-Carjacking is initiated by a signal from the controller or transmitter. The Anti-Carjacking protection, including the three ways to initiate it are described on page 21.

Feature #20 Open Door Warning Upon Arming

Factory Default Setting **Off** (press "**disarm/unlock**" button to program)
Option: **On** (press "**arm/lock**" button to program)

When this feature is turned on, if one of the vehicle's doors is open at the time that the system is armed via the controller or transmitter, the siren will chirp 3 times and the parking lights will flash 3 times instead of once.

Feature #21 "III" Button Operation

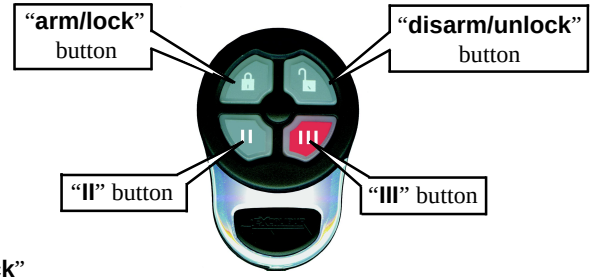
Factory Default Setting **3rd Channel**
(press "**arm/lock**" button to program)

Options:
Panic (press "**disarm/unlock**" button to program)
4th Channel (press "**II**" button to program)
5th Channel (press "**III**" button to program)

This feature changes how the controller's or transmitter's "**III**" button operates. Normal operation, or the default setting, has the "**III**" button operate the 3rd channel output. This feature allows changing it to instead operate the panic function or either of the two other optional channel outputs should a dedicated one-button operation be desired for any of these functions. Panic can always be operated, by the alternative methods of pressing either the "**arm/lock**" and "**disarm/unlock**" button for 3 seconds. This feature can also assign the 4th and 5th channels to the "**III**" button, in the same manner as the 3rd channel.

The 2-Way Controller

The 1-Way Transmitter



"**arm/lock**"

- 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 this button 2 times within 5 seconds will activate the 2-way controller's **parking timer** which you can use to time how long you've parked your vehicle in a particular spot or parking meter.

"**disarm/unlock**"

- Pressing and releasing the "**disarm/unlock**" button disarms the system and unlocks the doors unless the alarm is triggered, in which case it will disarm the activated alarm, but not unlock the doors unless the button is pressed again.
- Pressing and holding this button for three seconds will first disarm, and then activate the Panic feature, unlocking the doors.
- The unlock operation may be optionally configured during the system's installation 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.

"**II**" or "⁚"

- Pressing the "**II**" button for two seconds can be used to activate an extra output, known as the "2nd channel", for an optional function such as trunk release.
- Pressing and releasing this button twice arms or disarms the system without the confirmation chirps.
- Pressing this button immediately after arming will leave the alarm armed, but with the shock sensor feature bypassed.

"**III**" or "⁝"

- Pressing and releasing the "**III**" button 2 times in 5 seconds will activate the 3rd channel output. This will also activate a factory remote start if your vehicle is equipped and the AL-1510-EDP is configured to do so.
- The "**III**" button can be reprogrammed for additonal operations. See programmable feature #21.

"**P**" on the controller only.

- The controller has a fifth button, "**P**", which will illuminate the LCD screen when pressed. This is also the "Programming" button; it is used to customize controller operations, which is explained on pages 19 and 20.
- **Multi-car selection**: The 2-way controller can operate up to 2 separate systems. Pressing the "**P**" button and the "lock" button at the same time for 1 second will select **CAR 1**and pressing the "**P**" button and the "unlock" button at the same time for 1 second will select **CAR 2** as indicated on the controller's display.

How the 2-Way Echo controller reacts is included in the following general system operation descriptions, and then a more detailed description the Echo's icons and instructions for its programming are detailed on pages 17-20.

- IMPORTANT -

The Excalibur AL-1510-EDP is one of the most versatile vehicle security systems made. It has many programmable features which can offer more functions and operations beyond which are described in the basic system instructions.
To a large degree, these extra features and operations are configured at the installation of the system. Please read the sections of this manual which explain programmable features, and please consult your installer for specifics on how your system is configured, and for installation options which may have used, or can be added to system after installation.
EXAMPLE- the Excalibur can sound the vehicle's horn in place of or in addition to the electronic siren which is included with it. But the operations are described with the siren only.

there is a brief period of time in which a system activation, or alarm, cannot occur. This Arming Delay allows the system to completely process its sensory parameters, which can include allowing the vehicle to stabilize. In some cases more time is needed than the factory-set 3 seconds, and this feature offers three longer delay options.

Feature #15 Steady Siren or Pulsed Horn

Factory Default Setting	**Steady Siren** (press "**arm/lock**" button to program)
Options:	
Pulsed Horn Low	(press "**disarm/unlock**" button to program)
Pulsed Horn Medium	(press "**II**" button to program)
Pulsed Horn High	(press "**III**" button to program)

It is important to understand that the Excalibur has a primary audible output, for the electronic siren; and that it also has a programmable output used to sound the vehicle's existing horn. This feature changes only the primary audible output, so that it can be utilized to sound the existing horn by itself. This is for cases when the programmable output is desired for other features, such as OEM disarm, or as an additional auxiliary output.

The Steady Siren setting is exactly that- a steady output which the electronic siren requires. When programming this feature for using the output for the vehicle's horn, the optional setting produce pulsed output on the system's siren wire, in three different pulse timings, which allow a degree of customization of the horn's sound during the alarm activation.

Feature #16 Alarm Functions Bypass

Factory Default Setting	**Off**	(press "**disarm/unlock**" button to program)
Option:	**On**	(press "**arm/lock**" button to program)

This feature converts the system into a strictly Remote Keyless Entry System by eliminating all antitheft alarm-oriented operations and features. When this feature is programmed on, the Excalibur has remote keyless entry operation only.

Feature #17 Ignition Activated Anti-Carjacking Protection

Factory Default Setting	**Off**	(press "**disarm/unlock**" button to program)
Option:	**On**	(press "**arm/lock**" button to program)

This form of Anti-Carjacking is initiated by the ignition key being turned on. The Anti-Carjacking protection, and the three ways to initiate it are described on page 21.

Feature #11 Alarm Duration

Factory Default Setting **30 Seconds**
(press "**arm/lock**" button to program)

Options:

60 Seconds (press "**disarm/unlock**" button to program)

90 Seconds (press "**II**" button to program)

120 Seconds (press "**III**" button to program)

This feature allows four choices of the Alarm Duration, which is the period of time for which the system sounding the siren (and/or horn, optionally) and flashes the parking lights when it is triggered. **Caution: Before lengthening the Alarm Duration you should always check and determine if there are any local anti-noise or nuisance ordinances in your area, to avoid the possibility of receiving a violation citation.**

Feature #12 Parking Light Illumination Upon Disarm

Factory Default Setting **On** (press "**arm/lock**" button to program)

Option: **Off** (press "**disarm/unlock**" button to program)

This feature affects the parking light operation when the system is disarmed. When this feature is turned on, the parking lights flash once, and then turn back on for external illumination for 30 seconds unless the ignition key is turned on during that time. If this feature is turned off, the parking lights flash once only, and do not illuminate. This feature only affects the Excalibur's parking light operation, and not the interior light operation.

Feature #13 2nd Channel Also Disarms System

Factory Default Setting **On** (press "**arm/lock**" button to program)

Option: **Off** (press "**disarm/unlock**" button to program)

"2nd channel" is most commonly used to remotely open the vehicle's trunk, in which case the alarm should also disarm. This feature, turned on, configures the system to disarm when the 2nd channel is used. If turned off, the 2nd channel output will still occur, with 2 chirps, but without the parking light flashes; and if armed, the system will not disarm.

Feature #14 3 or 45 Second Arming Delay

Factory Default Setting **3 Seconds**
(press "**arm/lock**" button to program)

Options:

15 Seconds (press "**disarm/unlock**" button to program)

30 Seconds (press "**II**" button to program)

45 Seconds (press "**III**" button to program)

When the system is armed, whether by the controller, transmitter or by an automatic

Using the Excalibur System

Your Excalibur system is designed to deter theft of both your vehicle and its contents. **"Arming"** your system turns on the protection, disabling the vehicle's starter and locking the doors. Once the system is **Armed**, any intrusion attempt will **Activate** it, sounding the electronic "Psyren" psycho siren and flashing the parking and interior lights to attract attention. The unique and patented "2-in-1" Psyren psycho siren actually produces the sounds of two different sirens at once, ensuring that it won't be ignored like all of the other "common" car alarms. **Disarming** the system turns off the protection, unlocking the doors and turning on the parking and interior lights, allowing lighted access to, and normal use of, the vehicle.

There are two methods of arming the Excalibur:

1- The first method is to use the controller* or transmitter, by pressing and releasing the "**arm/lock**" button. The system must not already be armed or be in Valet Mode, and the vehicle's ignition key must be off.

2- The second method is Last Door Arming, which configures the system to automatically arm itself every time you exit the vehicle. This method of arming is programmable, and may be used or not used as desired.

Regardless of how it became armed, if the system is armed the window unit's Status Light flashes in the red color.

*If the 2-way controller is used to operate the system, it will receive a signal back and confirm that the arming operation was performed.

Arming Using the Controller or Transmitter

The system can always be armed from the controller or transmitter, if the ignition key is "off" and the system is not in the Valet Mode. To arm the system, exit the vehicle, close all of the doors, and simply **press and release the "arm/lock" button once**.

The system's reaction: The parking lights will flash once, the siren will chirp once and the Status Light will begin to flash red, 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.

If the controller was used: Immediately after the system responds the controller will chirp twice (or four times if a zone is bypassed), the "ARM" icon will appear, the "locked lock" icon appears, confirming that doors have locked, and the number of operating transmitters or controllers is briefly displayed.

*The system is described in its most common and basic configuration, with doorlocks connected, and the interior lights connected. Also, the vehicle horn may used in place of, or in addition to, the system's electronic siren.

The Excalibur system'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. Controllers and transmitters both operate in this fashion.

Arming Bypass: Upon arming, if any system sensing circuit is inoperable, that circuit only will automatically be bypassed. When an unsecured sensing circuit is in a bypassed state, all other normally operating circuits will be protected. 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 impact sensor, and the system is armed, it will indicate this by chirping the siren three times and flashing the parking lights three times instead of the normal arming indication of one chirp and one flash.

For example, should the trunk be open, such as containing an oversized object, you can still arm the system with the transmitter, and in this case the arming indicator will be 3 siren chirps and 3 parking light flashes. Arming Bypass will only operate when arming the system with the transmitter.

If the controller was used for the arming, it will chirp three times instead of the normal one time, and its display will also flash the icon of the zone which is bypassed.

Sensor Bypass: When arming the Excalibur system with the controller or transmitter, you may conveniently and easily temporarily deactivate the impact sensor without affecting the system's other sensing circuits. To deactivate the sensor, arm the system by pressing the "**arm/lock**" button, then press and release the transmitter's "**II**" button within three seconds. You will hear a second siren chirp confirming that the security system has armed without the sensor protecting the vehicle. The next time the system is armed normally with one "**arm/lock**" button press, the sensor will again be part of your protection.

If the controller is used for the arming and then bypassing the sensor, let it confirm the arming, then press the "**II**" button. The controller will then chirp twice and turn on its "Impact" icons to indicate the bypassed sensor.

Automatic "Last Door Arming" of the System

The Excalibur can also be programmed to automatically arm itself, and in this process, to lock or not lock the doors. When this feature is utilized, closing the vehicle's last door will cause the siren to chirp once, the parking lights to flash once and the Status Light to start rapidly flashing red. Thirty seconds later the siren will chirp again and the parking lights will flash again, the doors will lock (which is separately programmable) and the Status Light will slow to a steady red 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

Feature #8 Open Door Bypass of Ignition Locking

Factory Default Setting **On** (press "**arm/lock**" button to program)

Option: **Off** (press "**disarm/unlock**" button to program)

This feature cancels the automatic locking or unlocking of the vehicle's doors should one of the doors be open when the ignition switch is turned on or off.

Feature #9 Confirmation Chirps

Factory Default Setting **On**
(press "**arm/lock**" button to program)

Options:

Off (press "**disarm/unlock**" button to program)

Chirps Excepting Valet Mode (press "**II**" button to program)

Chirps in Valet Mode Only (press "**III**" button to program)

This feature removes the system's 1 arming and 2 disarming confirmation chirps. When this feature is used to remove these chirps, the system will still have 3 chirps upon arming if a protected zone is violated, and still have 4 chirps upon disarming if the system was previously activated. Using this feature to turn off the arm and disarming chirps will also not affect the Prewarning operation, Unauthorized Transmitter Alert (if used), nor will it affect the chirps used when programming.

The other two settings will have the confirmation chirps operate only when the system is in Valet Mode, and not otherwise; or, the chirps will operate except when the system is in Valet Mode.

Feature #10 Confirmation Chirp Volume

Factory Default Setting **Medium High**
(press "**II**" button to program)

Options:

Low (softest) (press "**arm/lock**" button to program)

Medium Low (press "**disarm/unlock**" button to program)

High (loudest) (press "**III**" button to program)

This feature allows the choice of four different volume levels of the system's confirmation chirps, and when programming it, the buttons can be repeatedly and sequentially pressed, thus making it easy to hear and choose the setting with the best chirp volume.

This feature operates regardless of how feature #15, "Steady Siren" or "Pulsed Horn" is set. Feature #15 sets "Steady"; or "Pulsed" as three different timings, for the activated alarm period output. This feature, #10, affects only the confirmation chirps.

Feature #5 Ignition Activated Override

Factory Default Setting **Off** (press "**disarm/unlock**" button to program)
Option: **On** (press "**arm/lock**" button to program)

This feature allows an activated system to be overridden and disarmed by simply turning the ignition switch on within 10 seconds of the system's activation. After 10 seconds, the Emergency Override must be performed or the controller or transmitter "**disarm/unlock**" button can be used to disarm the system.

Feature #6 Doors Lock With Ignition On

Factory Default Setting **On** (press "**arm/lock**" button to program)
Option: **Off** (press "**disarm/unlock**" button to program)

This feature configures the system to automatically lock the vehicle's doors every time that the ignition switch is turned on. An exception to this would be if feature #8 is turned on, and a door being open when the ignition switch is turned on. The following feature #7 controls the automatic unlocking operations, and feature #8 provides for an override of this automatic locking if a door is open when the ignition is turned on.

Feature #7 Doors Unlock With Ignition Off

Factory Default Setting **On (all doors will unlock)***
(press "**lll**" button to program)

Options:
Off (press "**arm/lock**" button to program)
Driver's Door Only* (press "**disarm/unlock**" button to program)
All Doors Except Driver's Door* (press "**ll**" button to program)

Similar to the previous locking feature, except this feature controls the unlock operations when the ignition is turned off, and it has more options because of the Excalibur's multiple unlocking outputs.

***Multiple unlock outputs offer the capability of unlocking only the driver's door when the system is disarmed (Driver Door Priority Unlocking), and then the option of unlocking all doors with a second press of the "**disarm/unlock**" button. **The driver's door unlocking differently from the other doors must be configured when the system is installed!**

If the system is installed without the Driver's Door Priority Unlocking interface, this feature unlocks all of the doors when the ignition switch is turned off.
If Driver's Door Priority Unlocking is installed, this feature can control only the driver's door unlocking when the ignition is turned off, all doors unlocking, or all doors except the driver's. The following feature provides for an override of this automatic unlocking if a door is open when the ignition is turned off.

must be closed to initiate the Last Door Arming sequence.
To temporarily prevent the system from automatically Last Door Arming, you have these options: put the system into Valet Mode (page 14 and 15), 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.

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 using it may entitle you to an insurance discount (please check with your agent or carrier).

While the System is Armed, and should it Trigger

While the security system is armed, the Status Light flashes red in color. Should any intrusion attempt be detected, the system will instantly activate, or "trigger". Once triggered, the Excalibur loudly sounds the siren and flashes the parking and interior lights on and off.

When it is first triggered, the Status Light changes its red flash pattern, and the doors will automatically relock. Should a door be open when the system triggers, it will wait until the door is closed, and at that time relock the doors. The automatic relocking of the doors denies access to the thief, and is just one of the many exclusive patented features of the Excalibur. The siren will sound and the parking and interior lights will flash for 30 seconds unless you disarm the system first (60, 90 and 120 seconds activated periods are options- see Feature #11, page 30). If all protected entries are secure at the end of the 30 seconds, the system will stop and rearm itself, ready to detect further entry attempts. If there is a protected entry still open or the impact sensor still in a violated state at the end of 30 seconds, the system will reactivate for two more 30 second cycles. In this case the system will stop after a total of 3 cycles and rearm automatically, and then ignore only the open entry or violated sensor. When the entry is closed or the sensor is reset, protection will begin instantly for the formerly affected circuit.

Anytime the security system triggers, the Status Light will indicate which protected zone triggered the system by flashing two (hood/trunk), three (door) or four (sensor) times between pauses. This "Zone Violation" 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". Once the Excalibur has been activated and reset, the disarming confirmation changes to make the user aware that it was activated.

How the controller reacts: Any 2-way controller programmed to the system will react to an alarm activation, provided it is within range of the system. Upon receiving a signal from the activated system, the controller will start chirping, and an icon will start flashing, indicating which protected zone's violation caused the system's alarm condition.

The controller will continue the chirping for 15 seconds, or until any of its

buttons are pressed. Which controller button that is pressed will have these corresponding effects upon the triggered Excalibur system:

- Pressing "**arm/lock**" will rearm the system, stopping both system's alarm condition (leaving it armed), and stop the controller's chirping.
- Pressing "**disarm/unlock**" will disarm the system, leaving the doors locked, stopping both system's alarm condition (leaving it disarmed) and the controller's chirping. Pressing the button a second time unlocks the doors.
- Pressing and releasing any of the three other buttons will simply stop the controller's chirping, but leave the security system still sounding in its alarm state.

The controller will continue to display the flashing icon indicating the violated zone, while the system is disarmed, until the ignition switch is turned on.

Prewarning Detection Circuit: 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 Prewarning circuit has been triggered five times it will automatically shutdown until the alarm system is disarmed, then armed. If the controller was used to arm the system and prewarning occurs, if in range it will react by chirping 3 times and showing the "impact" starburst icon on its display.

Disarming the System

There are two methods of disarming the Excalibur:

1- The primary method is to use the **controller or transmitter** by pressing and releasing its "**disarm/unlock**" button. This is the normal "daily use" method.

2- The second method is an "**Emergency Override**" alternative, should the controller or transmitter become lost or inoperable. This method uses the Valet Switch, but the vehicle's ignition key is also required.

Disarming the System Using the Controller or Transmitter

Press and release the controller or transmitter "disarm/unlock" button once to instantly disarm the system, disengage the starter interrupt and unlock the doors. If you have the optional unlock driver's door feature installed, then upon disarming only the driver's door will unlock, and if the "**disarm/unlock**" button is pressed again at anytime thereafter, all of the doors will unlock.

The system's reaction: Disarming is confirmed by the siren chirping twice, the Status Light turning off, and the parking lights flashing twice, then with the interior lights illuminating for 30 seconds for approach illumination. The lights will turn off instantly if the ignition switch is turned "on" before the 30 seconds expires.

If the controller was used: It will confirm by chirping twice (or four times if the system was activated and reset), showing "DISARM" icon and "unlocked lock",

Feature #2 Last Door Arming

Factory Default Setting **Off**
(press "**arm/lock**" button to program)

Options:

On without doors locking (press "**disarm/unlock**" button to program)

On with doors locking (press "**ll**" button to program)

"Last Door Arming" has the system automatically arm itself every time you exit the vehicle (the complete operation is described on pages 8 & 9). This feature turns that operation on or off, and with options of having Last Door Arming operate with or without also locking the doors when the system does arm.

Feature #3 Automatic Rearming

Factory Default Setting **Off**
(press "**arm/lock**" button to program)

Options:

On without doors locking (press "**disarm/unlock**" button to program)

On with doors locking (press "**ll**" button to program)

"Automatic Rearming", described on page 11, prevents the system from becoming accidentally disarmed by having it arm itself after being disarmed, if a door is not then opened or the ignition turned on. Options are to have Automatic Rearming operate with or without also locking the doors when the system does rearm.

Feature #4 Starter Interrupt Functions

Factory Default Setting **On**
(press "**arm/lock**" button to program)

Options:

Off (press "**disarm/unlock**" button to program)

Automatic (press "**ll**" button to program)

This feature controls the Starter Interrupt circuit, in several ways. In its default setting, "On", the Starter Interrupt is operable whenever the alarm is armed.

The "Automatic" option 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 controller or transmitter, or placed into the Valet Mode by pressing and holding the Valet Switch for 2 seconds to disengage it. There are no Status Light indications with this automatic form of Starter Interrupt.

Programming this feature "Off" completely eliminates the Starter Interrupt output, while leaving all other system operations fully functional.

Exit Programming mode:

Step 7 Allow 10 seconds to pass without performing any programming actions, or turn the vehicle's ignition on.

• The siren will sound briefly and the Status Light will go out.

Programmable Features Descriptions

Feature #1 SecureCode

Factory Default Setting **1 Press**
Options:
1 to 9 presses, in each of two stages

SecureCode is a unique patented feature which allows you to custom select the number of Valet Switch presses in two stages, instead of a single "1 press", which would be required in order to perform an Emergency Override. If any of the three anti-carjacking features are utilized, a customized SecureCode would also be required to turn it off once it is fully activated. The SecureCode operation is described on page 15.

To custom program a new SecureCode:

Step 1 Follow Steps 1 to 4 in the previous "How to Program Features" instructions; at Step 4 the Valet Switch will be pressed and released once (the siren chirps once) to access "feature #1".

Step 2 Within 10 seconds slowly press and release the controller or transmitter's "**arm/lock**" button the number of times equal to the desired SecureCode for stage 1, allow the system to respond to each controller/transmitter button press with a siren chirp before pressing the button again.

Step 3 After entering the first stage by pressing the "**arm/lock**" button the desired number of times, and receiving a chirp for each press, wait for the system, after the final button press, to chirp the siren again the total number of times that the button was pressed.

Step 4 Continue to configure stage 2 of the SecureCode by now pressing and releasing the "**disarm/unlock**" button the number of times desired for the stage 2. This should be done in the exact same fashion as the stage 1 entry-press the "**disarm/unlock**" button, wait for a single chirp before pressing the button again, and then when final button press is done, wait after the single chirp for the siren to chirp the total number you entered via the Valet Switch.

and briefly showing the number of operating controllers or transmitters.

If the Excalibur was activated and reset itself: The disarming confirmation will no longer be 2 siren chirps, and the parking lights flashing twice before staying on with the interior lights. 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 Status Light will have changed to flashing two to four times between pauses as a "Zone Violation" code to indicate which protection circuit triggered the system (2 flashes, hood/trunk; 3 flashes, doors; 4 flashes , impact sensor). These special audible and visual disarming indications, and Zone Violation code, will remain this way until the ignition key is turned "on".

Safety Disarm/Storm Mode: While the system is activated, i.e. sounding the siren and flashing the lights, pressing the "**disarm/unlock**" button will disarm the system, but not unlock the doors. 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**" button again. If disarmed from a panic mode, the normal disarm indications are present, including the unlocking of the doors.

Automatic Rearming Feature: Automatic Rearming is a programmable feature which ensures that your system is never inadvertently disarmed. It is possible to accidentally or unknowingly operate the controller or transmitter from a pocket or purse. You may not even be aware of an accidental disarming due to the enhanced operating distance offered by the Excalibur's extended range, or if the controller confirmation is not noticed. Automatic Rearming has the alarm rearm itself 90 seconds after it has been disarmed, unless a vehicle door is opened or the ignition key turned on. Automatic Rearming is confirmed by a fast flashing Status Light after the disarming, unless the system was triggered, in which case a Zone Violation code will flash instead.

During the 90 second period, Automatic Rearming can be paused by opening the door or stopped completely by turning the ignition key "on". 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.

Disarming the System by Emergency Override

Should the transmitter become lost, damaged, or its batteries become exhausted, the Valet Switch and the vehicle's ignition key may be used to disarm the system:

Step 1 With the system in the armed condition, enter the vehicle via the driver's door (be aware that the alarm will trigger when the door is opened).

Step 2 Using the ignition key, turn the vehicle's ignition switch on.

Step 3 Within 5 seconds press and release the Valet Switch one time. The system will disarm.

The number of Valet Switch presses which are required for the Emergency Override is custom-programmable! This is the SecureCode feature, which is described on page 15 and page 26. **The above Emergency Override instructions reflect the "as received from the factory" default setting.**

Remote Panic Feature

Should you feel threatened, or the need to attract attention, you can activate your system's remote "Panic" feature at any time by pressing and holding for 3 seconds the controller or transmitter's "**arm/lock**", the "**disarm/unlock**", or optionally the "**lll**" button (see programmable feature #21). Your system will respond by sounding the siren and flashing the parking lights for the normal activated alarm period of 30 seconds. Additionally, the Excalibur system features an unique "enhanced" remote Panic operation, regarding additional operations during Panic, and in association with the transmitter button used in it's activation or deactivation:

- Activating Panic with the "**arm/lock**" button will lock the doors, arm the system and engage the starter interrupt.
- Activating it with the "**disarm/unlock**" button will unlock the doors, disarm the system and does not engage the starter interrupt.
- Activating Panic with the "**lll**" button will not affect the system's armed or disarmed status; the doors locked or unlock condition; nor will it affect the starter disable circuit.

To disengage remote Panic, simply press and release any one of the same three transmitter buttons, or, allow it to automatically stop after 30 seconds.

- Deactivating Panic with the "**arm/lock**" button will stop Panic, and leave the system armed with the starter interrupt engaged, and the doors locked.
- Deactivating it with the "**disarm/unlock**" button will stop Panic, and leave the system disarmed with the starter interrupt disengaged, and the doors unlocked.
- Deactivating Panic with the "**lll**" button will stop Panic, and leave the system in the same state it was in at the moment Panic started, without locking or unlocking the doors.
- If the system is allowed to reset itself from remote Panic, it will enter the armed state, locking the doors and engaging the starter interrupt, regardless of which of the three buttons was used to activate it.

How to Program Features

The vehicle ignition key and the Valet Switch are used to enter the Programming Mode, then the controller or transmitter is used to change features. Once the system is in Programming Mode, a 10 second period without programming activity will cause the system to automatically exit Programming Mode. Features can be selected in any order as desired.

Enter Programming mode:

Step 1	Turn the vehicles's ignition on.
Step 2	Turn the ignition off.
Step 3	Within 5 seconds, Press & Release the Valet Switch **5** times. • The siren will chirp then sound briefly and the Status Light will light steady to confirm that the system is entering Programing Mode.

Access a Feature:

Step 4	Within 10 seconds, Press & Release the Valet Switch the same number of times as the desired feature's number. • The siren will chirp and the Status Light will flash off the same number of times as the Valet Switch was pressed to indicate the feature number accessed.

Change the Feature:

Step 5	After accessing the desired feature, within 10 seconds Press & Release the appropriate controller or transmitter button. • Pressing the "**arm/lock**" button typically turns the feature on; or sets the feature's first option. The siren will chirp once when this button is pressed. • Pressing the "**disarm/unlock**" button also typically turns the feature off; or, sets the feature's second option. The siren will chirp twice. • Many features have third, and even fourth setting options. Pressing the "**ll**" and "**lll**" buttons select these options. Confirmation chirps when these buttons are pressed are three and four chirps respectively.

To Access and Change further Features:

Step 6	If there are more features to be programmed, within 10 seconds of the previous action Press & Release the Valet Switch the same number of times as the next desired feature's number. • Again the siren will chirp and the Status Light will flash as many times as the Valet Switch was pressed to indicate the new feature number which is now accessed. Then use the controller or transmitter as described in Step 5 to change the newly accessed feature as desired.

It is important to note that programmable features affect the exact operation of the system, and that the descriptions of any features utilized should be used to supplement the basic system operations which were described in previous sections of this booklet.

Each of the Programmable Features is described in detail in the pages following the features' list and programming instructions.

The Programmable Features

The Excalibur AL-1510-EDP's versatility is due to an incredible array of programmable features. These are:

1 SecureCode
2 Last Door Arming
3 Automatic Rearming
4 Starter Interrupt Functions
5 Ignition Activated Override
6 Doors Lock With Ignition On
7 Doors Unlock With Ignition Off
8 Open Door Bypass To Previous Two Features
9 Confirmation Chirps
10 Confirmation Chirp Volume
11 Activated Alarm Cycle
12 Lights On Upon Disarm
13 Disarm Alarm Upon Trunk Release
14 Arming Delay
15 Steady Siren Output / Pulsed Horn
16 Alarm Functions Bypass
17 Ignition Activated Anti-Carjacking Protection
18 Door Activated Anti-Carjacking Protection
19 Remote Activated Anti-Carjacking Protection
20 Open Door Warning Upon Arming
21 III Button Operation
22 Doorlock Functions (an installation feature)
23 (-) Parking Light Output (an installation feature)
24 (-) Horn Honk Output (an installation feature)

"**Features Programming Mode**" is the means for changing any of the features.

Other Controller and Transmitter Operations

To **Silently Arm or Disarm** the alarm, press and release the "**II**" button twice. The siren's confirmation chirps will not occur, and this operation simply reverses, or "toggles" the armed and disarmed status of the system.

The **sensor** may be **temporarily bypassed**. When arming the alarm with the controller or transmitter, within 3 seconds after the arming chirp press the "**II**" button. The system will respond with another single chirp, confirming that the sensor is bypassed.

The **2nd channel output**, which is operated by pressing and holding the controller or transmitter "**II**" button for 1 second, is designed specifically to operate your vehicle's *electric* power trunk release. 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 2nd channel output will not operate when the ignition switch is "on" unless the vehicle's door is open. If desired, the security system can be programmed to remain armed when this feature is used, and connection of the 2nd channel may require extra parts or installation.

The Excalibur also has a **3rd channel output** which is similar to the 2nd channel, but it does have some special operational design differences. To operate it, press and release the "**III**" button 2 times in 5 seconds to operate this output.

The differences are that 3rd channel output will operate regardless of the ignition switch being "on" or "off", and there is no audible or visual confirmation (except on the 2-way controller's LCD display). Connection of the 3rd channel will vary, depending upon the chosen application, and may require extra parts or installation. Consult with your installer for more info.

There are also **optional 4th channel** and **5th channel outputs**, which are available if more remote control functions are desired. These outputs can be repurposed from two other system outputs by programmable features #23 and #24. The system must be configured to utilize these outputs; please consult your installer.

When these outputs are programmed and configured to operate, pressing the transmitter or controller "**arm/lock**" and "**II**" buttons together will activate the 4th channel output. Pressing the "**disarm/unlock**" and "**III**" buttons will activate the 5th channel. Or, if desired, the controller or transmitter "**III**" button can be programmed by to operate either of these channels.

Using the Valet Switch

The Valet Switch is located in the Window Unit, or optionally, the installer may have instead mounted a separate Valet Switch in a hidden, yet accessible location. Please ensure that you and others who use your vehicle are aware of the location of the Valet Switch and its uses. The Valet Switch has several functions:

- Placing your system into **Valet Mode**, which prevents it from arming.
- Should your controller or transmitter be lost or become inoperable, the Valet Switch, **and the ignition key**, can be used to disarm the system with an **Emergency Override**. Disarming the System by Emergency Override is described on pages 11 and 12.
- It is also used in the procedures for programming features and programming controllers or transmitters to operate the Excalibur system. See the "Programming sections of this manual for details on these uses.

Valet Mode: This allows you to turn off all of the "alarm" operations of the security system while retaining the remote convenience features such as keyless entry, Panic, and the Auxiliary Outputs. The system may only be placed into Valet Mode when it's disarmed; if armed, an Emergency Override must be performed before placing into Valet Mode. Once the system is in Valet Mode, it cannot become armed from the transmitter, Last Door Arming, or Automatic Rearming.

Valet Mode and Emergency Override are two similar, but different procedures, although both operations use the Valet Switch. Emergency Override disarms an armed and activated system, and requires the ignition key. Valet Mode turns off the alarm operations of the *disarmed* system, but without the need of the ignition key.

Valet Mode is designed for situations in which it is not convenient for the security portion of the system to be operational, such as during extended stopovers for vehicle servicing, maintenance, valet parking, washing, etc.

To Enter Valet Mode: With the system disarmed, press and hold the Valet Switch for 2 seconds.

- The siren will chirp twice, the parking lights will flash twice and the Status Light will illuminate on solid.*****
- To indicate that the system is in Valet Mode, the Status Light remains on whenever the system is in Valet Mode.
- To remind the user that the system is in Valet Mode, the siren will chirp once every time the vehicle's ignition is turned off.

*A pair of red Status Lights are standard, mounted in the 2-way window unit transceiver; or, separately mounted red and blue Status Lights are available as optional equipment, which replaces the standard Status Light.

Step 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 controller/transmitter code. To enter a code, simply press and release the "**arm/lock**" button (the button which is designed to arm the system). **When the first controller/transmitter code is learned all existing stored codes will be erased.**

Step 3 Press the "**arm/lock**" button on each remaining controller or transmitter. The system will chirp the siren once to confirm that each was learned. The controller or transmitter's other three 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.

If the Unauthorized Transmitter Alert feature is on, programming a controller or transmitter to the system will activate the Unauthorized Transmitter Alert warning and the extended Status Light visual display; for the next 48 hours the siren will sound a brief series of chirps every time the vehicle's ignition key is turned on. The following special procedure programs the controllers/transmitters and also turns the Unauthorized Transmitter Alert feature on.

Special Programming procedure to turn On the UTA feature: Use this method to program controllers or transmitters, and to turn on the Unauthorized Transmitter Alert feature.

Follow the same steps as the Standard Programming, but on any controller/transmitter being programmed instead of pressing the "**arm/lock**" button, press the "**arm/lock**" and the "**disarm/unlock**" buttons together. This action turns **on** the Unauthorized Transmitter Alert feature and at the same time programs the controller/transmitter to operate the system.

Once the Unauthorized Transmitter Alert feature is turned on, the warning will sound for 48 hours after any controller or transmitter programming, including the programming session which was used to turn it on. **NOTE: Once UTA is turned on, it cannot be turned off unless sent back to Omega for a factory reset.**

Controller and Transmitter Protection

The Excalibur system features several security safeguards in one of the most vulnerable areas of any remotely controlled system. These features are found in both 2-way controllers and 1-way transmitters.

Code Jumping™ It is quite easy, with the proper equipment, to record an alarm or keyless entry system's transmitter signal, and simply play the captured signal back to the system to defeat it. Excalibur's Code Jumping renders such "code grabbing" devices useless by randomly changing each signal that the controller or transmitter sends.

Automatic Transmitter Verification™ shows the total number of controllers and/or transmitters which can operate the system, by flashing the Status Light with this number for 10 seconds every time that the ignition key is turned on.

Unauthorized Transmitter Alert™ is a protection feature which may be turned on by the user (see the next section, "How to Program Controllers and Transmitters"). When this protection feature is utilized, whenever a controller or transmitter is added to operate the system, for 48 hours afterward a warning consisting of a brief series of siren chirps sounds every time the vehicle's ignition is turned on.

Also during this 48 hour warning period, the 10 second Automatic Transmitter Verification visual display will increase to being displayed for 90 seconds instead of 10 seconds. When this feature is used and activated, after 48 hours the warning chirps disappear and the Status Light flashing transmitter/controller number returns to being displayed for 10 seconds.

How to Program Controllers or Transmitters

The Excalibur system is capable of being operated by as many as four controllers or transmitters; these can be any combination of 1-way transmitters or 2-way controllers. Regardless of which, the transmitter or transceiver must be encoded, or programmed, to the system in order to operate it (excepting the originals, which were programmed at the factory).

The programming procedure is identical for a transmitter or for a controller. Also, it is during the controller/transmitter programming procedure that the Unauthorized Transmitter Alert feature may be turned on.

Standard Programming: Using this method to program additional or replacement controllers or transmitters does not affect Unauthorized Transmitter Alert.

Step 1 Have all controllers and/or transmitters which are to operate the system at hand. Turn the ignition "on".

To Exit Valet Mode, simply Press & Release the Valet Switch at any time.

- The Status Light will turn off to confirm exit from Valet Mode.

SecureCode

"SecureCode" allows the user to customize the number of Valet Switch presses which are required to successfully perform an Emergency Override. **The basic Emergency Override procedure is described on pages 11-12**. Instead of a single "1 press" of the Valet Switch which would be required in order to perform an Emergency Override, two stages of Valet Switch presses must be made. In each of the two stages, the Valet Switch will need to be pressed 1 through 9 times, as programmed by the user. This is the Emergency Override procedure if the system has programmed with a customized SecureCode:

Step 1 With the system in the armed condition, enter the vehicle via the driver's door (be aware that the system will activate to an alarm condition when the door is opened).

Step 2 Using the ignition key, turn the vehicle's ignition switch on.

Step 3 Within 5 seconds press and release the Valet Switch the same number of times that have been programmed for stage #1.

Step 4 After a few seconds, the siren will stop sounding, chirp once, and then resume sounding.

Step 5 Now, within 5 seconds press and release the Valet Switch the same number of times that have been programmed for stage #2. Within a few seconds the siren will stop sounding, and the unit will disarm.

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.

Should a mistake be made entering the SecureCode for an Emergency Override, after a failed attempt the ignition switch must be turned off, then on again before another SecureCode entry attempt is made. **Should two failed SecureCode attempts be made, the system will ignore any further presses of the Valet Switch for two minutes.**

In addition to Emergency Override, if any of the three anti-carjacking features are utilized, a correct customized SecureCode would also be required to turn off anti-carjacking once it has become fully activated. How to program your own customized SecureCode is explained on pages 26.

The Status Light

The Status Light visually confirms the status of the system and provides a high level of visual deterrence. The Status Light is in the window unit, and actually consists of two LED lights, with identical operation, for maximum visibility. These lights illuminate Red in color, but separately mountable Status Lights are available, in either Red or Blue color. So whereas the standard Status Light is described as Red, other colors may be found.

Security System Status: These are the "normal" operations of the Status Light, indicating the state of the security system. Exceptions to normal operation are the transmitter verification display upon turning on the ignition key, and

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

Automatic Transmitter Verification: For the first 10 seconds after the vehicle's ignition is turned on, the Status Light will flash a number of times between pauses that equal the number of controllers or transmitters that are programmed to operate the system:

5) 1 Flash /pause = 1 controller or transmitter is programmed.
6) 2 Flashes /pause = 2 controllers or transmitters are programmed.
7) 3 Flashes /pause = 3 controllers or transmitters are programmed.
8) 4 Flashes /pause = 4 controllers or transmitters are programmed.

Zone Violation: If the system enters an alarm condition, the Status Light will stop flashing slowly and begin to flash in a sequence between pauses to indicate which protected zone caused the alarm condition. The Status Light will flash and pause to indicate which protected zone was violated while the system is still armed, after it is disarmed, and until the vehicle's ignition is turned on. The system's Zone Violation feature's memory can store two consecutive zone violations. If there have been multiple violations, the Status Light will show the two most recent violations in the order in which they occurred.

9) 2 Flashes / Pause = System was triggered by open hood or trunk.
10) 3 Flashes / Pause = System was triggered by an open door.
11) 4 Flashes / Pause = System was triggered by the sensor.

• Turning on the ignition will clear the Zone Violation.

Anti-Carjacking Protection

The Excalibur is equipped with three separate Anti-Carjacking protection features, whose operation may be selectively activated by the ignition, by an open door, or by the transmitter. All three are programmable, and must be turned on to operate. Once activated, the user has 53 seconds to cancel the Anti-Carjacking protection process by pressing the Valet Switch once. If Anti-Carjacking is not cancelled, 53 seconds after being activated the siren will begin to chirp for 7 seconds to alert the user that the system is about to enter into an alarm condition. The Valet Switch may still be pressed once during this period to cancel the Anti-Carjacking process.

If the Anti-Carjacking process is not cancelled before the 60 second count-down expires, the system will enter an alarm condition, sounding the siren and flashing the parking lights. 30 seconds after this occurs, or should the ignition be turned off in the meantime, the stater interrupt will engage. Once the system enters the alarm condition, it will not respond to the transmitter, nor will the system reset automatically after 60 seconds, and it can only be disengaged by:

Step 1 Turning the vehicle's ignition off.

Step 2 Turning the ignition back on.

Step 3 Within 5 seconds, perform an Emergency Override using the Valet Switch. If the SecureCode has been customized, the correct number of Valet Switch presses must be made.

The three types of Anti-Carjacking protection features are:

Anti-Carjacking protection activated by the vehicle's ignition has the process start every time the vehicle's ignition is turned on. The Valet Switch must be pressed within 60 seconds every time the vehicle is started to cancel Anti-Carjacking. This is User Programmable Feature #17 (see page 31).

Anti-Carjacking protection activated by an open door has the process start should a door be opened after the vehicle is started and the engine is running. The Valet Switch must be pressed within 60 seconds after the door is opened to cancel Anti-Carjacking. This is User Programmable Feature #18 (see page 32).

Anti-Carjacking protection activated using a controller or transmitter has the process start by pressing and holding the "**III**" button for 3 seconds, but only if the vehicle's ignition is on. The Valet Switch must be pressed within 60 seconds after this is done to cancel Anti-Carjacking. This is User Programmable Feature #19 (see page 32).

6) **Press and release the ":" button**. Each press of the button changes to the next melody, note that the LCD screen displays "S" and a numeral, which is the melody number. When the desired musical tone has been the last one played **press and release the "P" button**.

7) The controller will play another musical melody; this is the **Stop Melody** which plays when remote start engine run period ends. There are five different melody choices which can be made. **Press and release the ":" button** . Each press of the button changes to the next melody, note that the LCD screen displays a numeral, which is the melody number. When the desired musical tone has been the last one played, you may

leave the controller undisturbed for 12 seconds, until it chirps once
OR
press and release the "P" button to scroll back through the features.

- While the controller programming must be "scrolled" through, programming mode can be exited at any point within the menu by simply not pressing any buttons for 12 seconds. The Echo chirps once when it exits programming mode.
- If the Echo is configured for "MUTE" operation (vibrates instead chirping), then in programming it will not play the musical melodies. Instead, it vibrates when the remote start Melody and Stop Melody are accessed for programming.

Timer Functions: The ECHO 2-way controller has 2 timer functions. A parking timer for timing how long you've parked in a limited parking zone or at a parking meter. Also, if this system is used to activate an optional remote start system, the controller has a remote start timer to keep track of how long the vehicle's engine has been running.

Parking Timer: Press the **"LOCK"** button twice within 5 seconds to activate. The digital clock display will change to "0:00" to indicate the timer has started. The timer is in hours/minutes format and can be canceled by pressing the **"UNLOCK"** button. Press the "P" button during the timer to see the clock display. It will display for 5 seconds then return to the timer.

Remote Start Timer: Using the 3rd channel output to activate a remote start system will automatically start the timer. The digital clock display will change to "0:00" to indicate the timer has started. The timer is in hours/minutes format and can be canceled by deactivating the remote start system. Press the "P" button during the timer to see the clock display. It will display for 5 seconds then return to the timer.

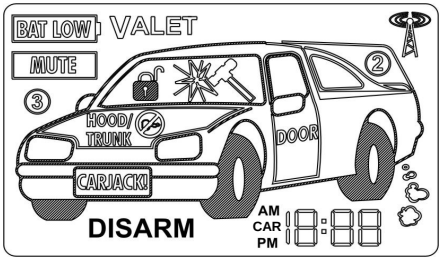
Multi-Vehicle Operation: The ECHO 2-way controller is capable of operating up to 2 separate systems in separate vehicles. This is indicated by seeing "CAR1" or "CAR2" in place of the clock display. Select "CAR1" by pressing "LOCK" and "P" for 1 second. Select "CAR2" by pressing "UNLOCK" and "P" for 1 second. Every alert to the controller will also indicate which "CAR" sent the alert.

The 2-Way Controller

The four system- operating buttons are described on pages 4-7. This section explains the controller's icons, and how to program the controller's features.

Controller Icons: The LCD screen on the controller has various icons which indicate system status. When the controller is used to operate the system, it receives back a signal which causes it to chirp (emulating the siren) and display the appropriate icons. Brief descriptions of the icons are:

- The digit readout is a clock, with AM and PM indication. This readout also shows how which vehicle is selected (1 or 2) and is used for the timer functions (page 20).
- The "DISARM" also shows "ARM"; to indicate the Armed or Disarmed status of the system. Neither icon is present when the system is in Valet Mode.



- The locked or unlocked padlock (windshield) reflects the locked or unlocked doors status as last operated by the Excalibur system (certain programmable features can automatically arm the system, but not lock the doors). Arming with the controller or transmitter always locks the doors; when disarming they will unlock unless the system is activated and sounding.
- "VALET" indicates alarm Valet Mode, replacing the "ARM" or "DISARM" icons. A musical tone occurs when placing the system into Valet Mode.
- When "BAT LOW" appears the transceiver's 1.5 volt AAA battery should be replaced with a new battery.
- The controller's chirps and musical tones may be turned off, which makes the unit vibrate instead; "MUTE" indicates this state.
- The "3" within a circle appears when the 3rd Channel Output is operated.
- "HOOD/TRUNK" indicates that this vehicle zone is or has been violated. If associated with the system being activated, the controller also emits chirps, until any button is pressed. In this case, the icon remains flashing until the ignition switch is turned on.
- The "crossed-out key" icon, on the hood area, only appears when the controller is used with systems having built-in remote starting. This icon indicates an aborted remote starting due to a violated safety circuit. The AL-1510-EDP can

be used with an optional remote starting unit; the remote "start" icon (below) will operate, but not this icon.

- The "CARJACK" icon within the vehicle's front tag frame indicates that this operation has been activated, which can be performed by any of three methods.
- On the vehicle's windshield is a "hammer" and "impact" icon. When the shock sensor detects light impact, causing the system to prewarn, the "impact" icon alone will momentarily appear, accompanied by three chirps. If the sensor detects a harder impact or breaking glass, activating the system, the full hammer and impact icon appears, and the controller chips until any button is pressed, and the icon remains flashing until the ignition switch is turned on.
- The "DOOR" icon will indicate that the system was activated via the door detection circuit. The controller chirps until any button is pressed, and the icon remains flashing until the ignition is turned on.
- If an optional remote start unit is added to the AL-1510-EDP, the "start" icon at the rear of the vehicle can confirm remote starting, and it is accompanied by a musical melody. The 3rd channel must be operated first, and then if the AL-1510-EDP detects that the ignition circuit is turned on it will display this icon.
- The "2" within a circle indicates use of the 2nd Channel Output, which is most commonly used for a remote trunk release feature.
- The "transmitting tower" icon is an in-range indicator. It is present if the last transmission by the controller was answered by a return signal from the system. Should the controller be operated, and no return signal is received, this icon will disappear.
- The various lines at the upper rear of the vehicle graphic represent a unique Excalibur feature which allows the user to customize the vehicle type represented by the display. Options are: passenger car, pickup truck, and sport utility/van.
- The system will only transmit a signal to the controller if it was last used to operate the system (as in arming or disarming it). Example: if the 1-way transmitter is used to arm the alarm, the system will not transmit a signal which will cause the 2-way controller to chirp and change its icons.

Notes about the Controller and its operation:

- If multiple controllers are programmed to operate the system, the system will immediately send a page signal to the last one used. It will send the same signal to additional controllers within 10 seconds of the first.
- When the Excalibur system does send a signal to the controller, a few seconds is needed for this wireless "handshake" to occur. If the system is operated in a

rapid fashion, as in quickly repeating arm and disarm cycles, the controller will not have time to receive the signal from the system, and therefore it will stop responding and reporting the system's status. Normally operating the system corrects this symptom.

- A final point to remember is that the controller cannot receive a signal from the AL-1510-EDP system while it itself is transmitting. For normal operations, the controller's buttons are pressed and released. Even when "Panic" is operated, the controller button should be released as soon as "Panic" engages. Otherwise, the controller cannot receive the signal from the system.

Programming the Controller:

The 2-way controller has several user-programmable features:

- **Chirp or Mute** The chirps may be turned off, and replaced with vibration.
- **Vehicle Type** Choices are a passenger car, pickup truck, or van/SUV. This can be selected separately for CAR1 and CAR2 profiles.
- **Time Adjust** To set the controller's clock time.
- **Start Melody**; and **Stop Melody** These are played with remote starting.

Programming these features is a sequential process- the controller is placed into programming mode, then each programmable operation is accessed in turn, and either changed as desired, or left as is, and then the next step is accessed. Programming is done using the Echo unit's three round side buttons:

1) **Press and hold the "P" button AND:**
   A- Choose **Chirp or Mute** by pressing the "**:**" button for 1 second.
   OR
   B- Continue holding this button for 5 seconds to enter programming mode.
2) **After 5 seconds the controller chirps twice; release the "P" button**; the upper rear of the vehicle will flash; **Vehicle Type** may be chosen.
3) **Press and release the ":" button**; each press of the button changes the vehicle from Passenger Car, then to Pickup Truck, and then to Van/SUV. When the desired type is flashing, **press and release the "P" button**; the **Time**'s "Hours" will flash, and may be set now.
4) **Press and release the ":" button** to advance the hours, or **press and release the "⋮" button** to reverse the hours. When the Hours are correct (please note "AM" or "PM"), **press and release the "P" button**. The **Time**'s "Minutes" will flash, and may be set now.
5) **Press and release the ":" button** to advance the minutes or **press and release the "⋮" button** to reverse the minutes. When the minutes are correct **press and release the "P" button**. The controller will play a musical melody; this is the **Start Melody** which plays upon remote starting. One of five melodies may be chosen now.