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Omega Research and Development, Inc.
P. O. Box 508
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01/09 MO-AL-1010-EDP

Excalibur AL-1010-EDP OPERATION MANUAL

**FRONT COVER
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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

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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

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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

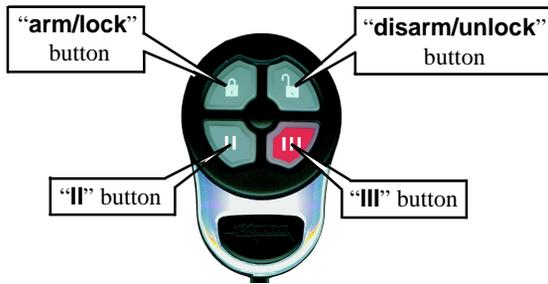
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Introduction to the System

Congratulations for your choice of a new Excalibur vehicle security and convenience system by Omega Research and Development. You will find that your new system will give you years of trouble-free convenience and protection. 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.

The Transmitter

The **Transmitter** operates the system. It has four buttons, and a small green light between the two large buttons, which illuminates whenever a button is pressed to transmit a command.



“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.

“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.

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.

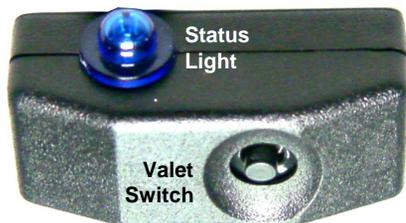
Note: When this feature is turned on, during the 28 second period after arming the system, the lock output can be stopped on demand by the user by pressing the “arm/lock” OR the “disarm/unlock” button. Only the output itself will stop- pressing either button again will normally operate the system, and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

ured 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.

The **Status Light** and **Valet Switch** may be mounted in an included holder, shown here, or these items may be independently custom-mounted within the



vehicle. If the optional Echo 2-way controller is used, the Status Light and Valet Switch are within a long-range receiver module, typically mounted to the windshield or other glass. The Status Light may be either blue or red; included with your Excalibur system is a blue light (red is available optionally), and it is red in the Echo receiver module.

Considering the flexible location choices for the Status Light and Valet Switch, and the available options, please discuss with the installer your preferences, or ensure that they show the location and operation of these important system components.

The Excalibur AL-1010-EDP is capable of having the optional Omega "Echo" added to it, which would add 2-way control and confirmation paging. In this case, the AL-1010-EDP's operations would be identical to that of the AL-1500-EDP. If the Echo is added, the instructions included with the Echo kit would then supplement this instruction booklet.

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 itself 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 first understand that the Excalibur has a primary audible output, for the electronic siren, and that it also has a programmable output which among its optional applications is being used to sound the vehicle's existing horn as a secondary audible output. This feature changes only the primary audible output, so that it can be utilized to sound the existing horn by itself. In this case it is not necessary to use the programmable output, so that it can still be used for its other features, such as disarming the factory alarm or as an additional channel 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 anti-theft 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 17.

Using the Excalibur System

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, without chirps or 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 transmitter or by an automatic feature,

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 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 Status Light flashes in a slow, steady manner.

Arming Using the Transmitter

The system can always be armed from the 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, 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.

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.

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

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 when 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.

Sensor Bypass: When arming the Excalibur system with the 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.

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. 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 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 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), 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).

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 transmitter “**dis-arm/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 “**III**” 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 “**II**” 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.

While the System is Armed, and should it Trigger

While the security system is armed, this is indicated by a slowly flashing Status Light. 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 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 26). 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 that 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 its 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.

When triggered, the alarm condition can be stopped instantly by pressing either of these transmitter buttons:

- Pressing “**arm/lock**” will rearm the system, stopping both system’s alarm condition (leaving it armed).
- Pressing “**disarm/unlock**” will disarm the system, leaving the doors locked, stopping both system’s alarm condition (leaving it disarmed). Pressing this button a second time unlocks the doors.

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.

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 transmitter's "arm/lock" button the number of times equal to the desired SecureCode for stage 1, allow the system to respond to each 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 of entered Valet Switch presses.

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 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, it 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. **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 transmitter's "**arm/lock**", the "**disarm/unlock**", or the "**III**" button (see programmable feature #21 to enable). Your system will respond by sounding the siren and flashing the parking lights for the normal activated alarm period of 30 seconds. The Excalibur system features an unique "enhanced" remote Panic operation, regarding the 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 "**III**" 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 "**III**" 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 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	<u>Within 5 seconds</u> , Press & Release the Valet Switch 5 times. <ul style="list-style-type: none">• 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	<u>Within 10 seconds</u> , Press & Release the Valet Switch the same number of times as the desired feature's number. <ul style="list-style-type: none">• 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.
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Change the Feature:

Step 5	After accessing the desired feature, <u>within 10 seconds</u> Press & Release the appropriate transmitter button. <ul style="list-style-type: none">• 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 "II" and "III" buttons select these options. Confirmation chirps when these buttons are pressed are three and four chirps respectively.
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To Access and Change further Features:

Step 6	If there are more features to be programmed, <u>within 10 seconds</u> of the previous action Press & Release the Valet Switch the same number of times as the next desired feature's number. <ul style="list-style-type: none">• 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 again use the transmitter as described in Step 5 to change the newly accessed feature as desired.
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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-1010-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 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 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 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. Connection of the 3rd channel will vary, depending upon the chosen application, and may require extra parts or installation.

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 which are designed to interface the Excalibur with an existing factory alarm system, 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's “**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 transmitter's “**III**” button can be programmed by to operate either of these channels.

Using the Valet Switch

The Valet Switch may be mounted in a special holder with the Status light, or optionally, the installer may have mounted it independently 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 transmitter be lost or become inoperable, the Valet Switch, **and the ignition key**, can be used to disarm the system with an **Emergency Override**.
- It is also used in the procedures for programming features and programming 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.

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.

system). When the first transmitter code is learned all existing stored codes will be erased.

- Step 3** Press the “**arm/lock**” button on each remaining transmitter. The system will chirp the siren once to confirm that each was learned. The 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 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 transmitters and also turns the Unauthorized Transmitter Alert feature on.

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

Follow the same steps as the Standard Programming, but on any 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 transmitter to operate the system.

Once the Unauthorized Transmitter Alert feature is turned on, the warning will sound for 48 hours after any transmitter programming, including the programming session which was used to turn it on.

Transmitter Protection

The Excalibur system features several security safeguards in one of the most vulnerable areas of any remotely controlled system. These features are:

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 transmitter sends.

Automatic Transmitter Verification™ shows the total number of 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 Transmitters"). When this protection feature is utilized, whenever a 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 the usual 10 seconds. When this feature is used and activated, after 48 hours the warning chirps disappear and the Status Light flashing the number of transmitters returns to being displayed for 10 seconds.

How to Program Transmitters

The Excalibur system is capable of being operated by as many as four transmitters. Transmitters must be encoded, or programmed, to the system in order to operate it (excepting the originals, which were programmed at the factory). It is during the transmitter programming procedure that the Unauthorized Transmitter Alert feature may be turned on if desired.

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

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

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 transmitter code. To enter a code, simply press and release the "**arm/lock**" button (the button which is designed to arm the

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 page 11.** 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 page 22.

The Status Light

The Status Light visually confirms the status of the system and provides a high level of visual deterrence. The Status Light in this Excalibur model is independent, and Blue in color. It may be mounted by itself, or contained in a special holder, with the Valet Switch, which is included with the system.

The Status Light by itself is also available in the color Red. If the system is upgraded to 2-way operation, with the optional Echo, the Status Light then may be within the 2-way window-mounted transceiver unit, in the form of two LED lights, with identical operation, which illuminate Red in color. So while the standard Status Light is described as Blue, 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 transmitters that are programmed to operate the system:

- 5) 1 Flash /pause = 1 transmitter is programmed.
- 6) 2 Flashes /pause = 2 transmitters are programmed.
- 7) 3 Flashes /pause = 3 transmitters are programmed.
- 8) 4 Flashes /pause = 4 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 siren 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 transmitter can NOT stop Anti-Carjacking; only the Valet Switch!

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 27).

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 28).

Anti-Carjacking protection activated using the 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 28).