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AL-100C

Full-Feature Vehicle Security System for Factory-Equipped Remote Keyless Entry Transmitters

Owner's Guide

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Introduction

The AL-100C adds fully-featured antitheft function and protection to your vehicle's existing factory-installed remote keyless entry system.

When armed, the AL-100C can detect an unauthorized entry of the vehicle, and reacts by sounding the horn and flashing the lights; when armed it will also prevent starting the vehicle. The AL-100C arms when you use your existing factory-equipped remote keyless entry transmitter to lock your doors, and disarms when you use your transmitter to unlock the doors.

Since the AL-100C is a universal add-on security system for existing keyless entry systems, its exact operations to some extent are determined by the particular vehicle and/or keyless entry system to which it has been added. The AL-100C has many programmable features allowing personally customized operations, and there are also available options such as electronic sirens and sensors, which can further enhance its operations.

Therefore this guide outlines typical operations of the system; you may wish to arrange for a demonstration of your new AL-100C security system. This guide describes the AL-100C operations only, and not any associated operations of the host vehicle or its remote keyless entry system.

Your AL-100C system has two principal user components: The red **Status Light** informs you at a glance which of the different conditions the security system is in, and also serves as a visual deterrent to break-ins and theft. The **Valet Switch** is used to access Valet Mode, which allows the operator to suspend some of the security system's normal functions for as long as desired. The Valet Switch may also be used, if needed instead of the remote keyless entry transmitter, to override an armed or activated AL-100C.

the security system to automatically arm itself via the Last Door Arming feature will configure a 15 second delay in the system activating after a door is opened. Further, during this 15 second delay, the system may be Disarmed by simply turning on the ignition switch. However, even if this feature is on, if the transmitter is used to arm the system there will not be a 15 Second Entry delay; instead, opening a door will instantly activate the system. Please refer to the two following use scenarios.

“Part-time use” of the 15 Second Entry Delay: Two persons use the same vehicle; one, a “most of the time” user, has a key and remote keyless transmitter. The other person is an “occasional user”, and has a key only. The first person uses the vehicle taking advantage of the full remote control operation of the AL-100C, while the second occasional use person can operate the system passively, as explained below. In both cases, the vehicle has the protection of the AL-100C.

“Passive Only” Operation of the AL-100C: The flexibility of the AL-100C's design allows its installation into, and operation of, a vehicle without remote keyless entry, while providing the same high level of antitheft security. For “Passive Only” operation, the Last Door Arming and the 15 Second Entry Delay features are both turned on. The AL-100C Arms every time the user leaves the vehicle (the locking of the doors at that time is optional). Upon returning to the vehicle, the user unlocks the door with the key, then has 15 seconds in which to enter the vehicle, and turn the ignition on, thus Disarming the AL-100C.

- ✓ **Doors Will Also Lock With Automatic Last Door Arming:** This feature operates in conjunction with the previous "Last Door Arming" feature; when both are turned on, when the AL-100C Arms 30 seconds after the last door is closed, the doors will also lock (connection of the AL-100C to the vehicle's doorlocking system is required). The factory setting of this feature is off.
- ✓ **Horn Chirp Confirmation On Or Off:** When the AL-100C is Armed or Disarmed the horn will chirp to audibly confirm the action. If this feature is turned off, these confirmation chirps will not occur, but the parking light flashes will still operate, giving the user a visual confirmation. Turning off the confirmation chirps deletes the chirps for all forms of Arming and Disarming (i.e.- via the transmitter, Automatic Rearming, Last Door Arming, and Override), but chirps do still operate when placing the system into Valet Mode, and with the optional sensor's Prewarn operation. The factory setting of this feature is on, making the confirmation chirps operational.
- ✓ **Current Sensing:** With this feature turned on, when the AL-100C is Armed it can be activated by its sensing a current draw from the vehicle's battery. For example, a current draw created by the dome light illuminating when a door is opened or the brake lights lighting when the brake pedal is pressed would activate the system. The factory setting of this feature is off.
- ✓ **15 Second Entry Delay:** This feature is best described as used to allow part-time remote keyless transmitter operation of the AL-100C, or, the conversion of the AL-100C to a passive vehicle security system not operated by transmitters. This feature operates in conjunction with Last Door Arming; when 15 Second Entry Delay is turned on, allowing

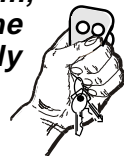
Arming the AL-100C

"**Arming**" places the AL-100C into a state which monitors the vehicle for intrusion attempts. Arming occurs when you lock the vehicle's doors with the vehicle's keyless entry remote transmitter. Arming is confirmed by the horn chirping once and the parking lights flashing once; additionally, the red Status Light inside the vehicle will start slowly flashing.

There are two different methods of arming the system:

- ✓ "**Active Arming**" by using the remote transmitter to lock the doors.
- ✓ "**Last Door Arming**", which is programmable to operate or not operate, and automatically arms the system when you close the door and leave the vehicle (this operation is explained on the next page).

***To Actively Arm,
Simply Lock the
Doors Remotely***



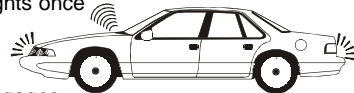
The AL-100C will:

Chirp the horn once

Flash the parking lights once

The Status Light
slowly flashes

The Starter Interrupt engages



Arming Bypass When arming the system from the remote keyless entry transmitter, should any protected circuit (except for the doors) be in a violated state, the horn will chirp three times and the parking lights will flash three times. This is "Arming Bypass"; when it occurs, protection for the affected circuit only will be temporarily bypassed. For example, should the trunk be left open, you can still actively arm the system, but it will have the three

chirp and three flash indication that a protected circuit is not secure. Once the system has armed, the bypassed circuit will automatically be reinstated for protection should it become non-violated (i.e.- if the trunk is closed). When a circuit is in a bypassed state, all other non-violated monitoring circuits, such as doors or hood, will be protected. The door protection circuit also has the Arming Bypass feature, but with the arming indication of one chirp and one light flash. Arming Bypass is only associated with Active Arming the system, and not Passive Arming.

The AL-100C can be programmed to arm itself automatically when the vehicle's last door is closed; this is the **"Last Door Arming"** feature. If this feature is selected, the moment the last open door is closed the horn will chirp once and the lights will flash once to confirm that all points of entry are closed, and that the passive arming sequence has begun.

This arming sequence lasts 30 seconds, and is indicated by a fast-flashing Status Light. Thirty seconds after the last door was closed, the horn will chirp again, and the lights will flash once again, confirming completion of the Last Door Arming sequence. When this occurs the Status Light changes to flashing slowly, and the system is fully armed three seconds later. If a point of entry is reopened before the single chirp and light flash occurs at 30 seconds, the Last Door Arming sequence stops, but will start over again when the opened point of entry is closed again. To temporarily prevent the system from Last Door Arming (such as while the vehicle is being refueled), you should put the system into Valet Mode or leave the vehicle's door open (in most cases, turning on the dome light will suffice).

A separate programmable feature may be utilized to have the doors automatically lock when the 30 second horn chirp and light flash occurs. The previously described Arming Bypass feature cannot operate with Last Door Arming; it only works when actively arming the

✓ **Automatic Ignition Doorlocking:** This feature has the security system automatically lock the doors 1 second after the ignition switch is turned on, and immediately unlock them when the ignition switch is turned off. An exception to this is the automatic locking or unlocking will not occur if a door is open at the time that the ignition switch is turned on or off. This is convenient when all passengers haven't yet entered the vehicle or when the driver exits and does not want the other doors to unlock. The factory setting of Automatic Ignition Doorlocking is on, making this feature functional.

✓ **Last Door Arming:** With this feature turned on the security system will arm itself automatically every time one of the vehicle's doors is closed. At the moment the last door is closed the horn will chirp once, the parking lights will flash once, and the Status Light will begin to rapidly flash. Thirty seconds later the horn will chirp once again, the lights will flash again, the Starter Interrupt engages and the Status LED will now flash slowly, indicating that the system is fully armed. If next feature is selected on, the doors will also lock. If any protected door, trunk or hood is opened at any time during the thirty second countdown, the Last Door Arming feature will be interrupted. When this opening is closed, the countdown resumes and system becomes fully Armed as described thirty seconds later. This feature allows unhurried passenger exit and trunk access, as the Last Door Arming process does not start until the last door or the trunk is closed, and opening any door or the trunk will interrupt the process. You can still, of course, actively arm the security system with the transmitter at any time during the 30 second countdown. The factory setting of this feature is off.

Note: All of the doors and the trunk must have the proper wiring connection to the AL-100C for this feature to operate as described.

The Optional Shock Sensor with Prewarn

Your AL-100C security system easily allows the addition of an optional dual-zone shock sensor to increase the effectiveness of your system. When Armed, a light shock or impact to the vehicle will produce a "**Prewarn**", which chirps the horn and locks the doors, without fully activating the system. If a heavier shock or impact is detected, it will fully activate the security system, sounding the horn and flashing the parking lights.

Power-Maze™ Protection

To increase the effectiveness of the security system, **the AL-100C always activates when power is first applied** (most other security systems will become disarmed). Should the vehicle's battery be disconnected and then reconnected, the AL-100C will activate instantly when power is reapplied. Further protection is provided by the exclusive **Power-Maze[®]** circuit- if the system's power wire is cut, the Power-Maze[®] feature will activate system as soon as the ignition circuit is hot-wired or receives power. The system will stay activated as long as the ignition is hot-wired.

Programmable Features

Your AL-100C security system has six programmable features which offer further operational enhancements. These features are selectable by switches inside the system control module; so it is recommended that the installer perform changes of any of the features. Following is a description of each of the features, noting its "factory setting", and notes regarding how each feature will affect the operation of the system.

system from the transmitter because all protected entries must be closed to initiate Last Door Arming. Of course, you can still arm the system instantly from the remote transmitter at any time during the 30 second Last Door Arming sequence. The Last Door Arming feature offers a high level of security, since you do not have to remember to arm the system each time you exit your vehicle, and may qualify you for an insurance discount.

The Armed System

When the AL-100C is armed, the Status Light flashes continuously in a slow and steady manner. In this state, any violation of a protected entry will instantly activate, or "trigger" the system. When this occurs:

- ✓ The vehicle's horn (or an optional electronic siren) will sound. The horn will repeatedly sound for one half second, pause for one half second for the duration of the 60 second activated cycle.
- ✓ The parking lights will flash repeatedly on and off during the 60 second activated cycle.
- ✓ If the power doorlocks are connected to the AL-100C, they will relock upon the system being activated; should a door be open at that time, the doors will relock when it is closed.
- ✓ The Starter Interrupt, always present when system is Armed, will continue to prevent the vehicle's starter from being engaged.

The horn will sound and lights will flash for 60 seconds and reset, unless you disarm the system first by using the remote keyless entry transmitter to unlock the doors. If needed, the Valet Switch and ignition key may be used to disarm the system, by performing an **Override** (see pages 8-11).

Should the system be activated, if all protected entries are secure at the end of 60 seconds, the system will stop itself and rearm automatically to detect another entry attempt. If there is a protected entry still open, or if an optional sensor is still in a violated state, the system will pause, and then reactivate itself for up to two more 60 second cycles. If this occurs, the system will stop itself after a total of 3 cycles (3 minutes) and rearm automatically, and ignore the open entry or violated sensor circuit while protecting the other circuits. Should the violated entry be closed or the sensor return to normal, protection will be reinstated for the affected circuit.

Additionally, when the security system has been activated and has reset itself, the confirmation upon disarming will no longer be the normal two horn chirps and the lights flashing twice then illuminating. Instead, the system will have 4 horn chirps and the lights will flash 4 times before illuminating. Anytime that the system is activated, the Status Light will immediately change to flashing one to three times between pauses, indicating which protected zone caused the system to activate. The Status Light will continue flashing this **Violation Code** until the ignition key is turned on (see page 11 for these Violation Codes).

Disarming the AL-100C

“**Disarming**” removes the AL-100C from its state in which it monitors the vehicle for intrusion attempts; or, to turn off the system should it have detected such an attempt, and has activated, sounding the horn and flashing the parking lights. There are two ways to Disarm the system- by Remote Keyless Entry transmitter; or by performing an Override with the ignition key and Valet Switch. Disarming the system allows use of the vehicle.

Disarming by Remote Keyless Entry Transmitter: Unlock the vehicle's doors with the remote keyless entry's transmitter to disarm the AL-100C. Disarming is confirmed by the horn

Once the system is Disarmed via the Override, if Valet Mode is desired, then press and hold the Valet Switch for 2 seconds to place the system into Valet Mode.

The Status Light

The Status Light indicates several system conditions; which can be categorized into two areas: **System Status** and **Zone Violation**.

System Status: The Status Light is a visual indicator of what state the security system is in at any given time. It is normally positioned in a location that is easily observed by the driver. There are four possible status conditions that the system can be in, as reflected by the Status Light:

- Off = The system is disarmed, and not performing any automatic arming functions.
- On Constant = The system is in the Valet Mode.
- Flashing Slowly = The system is armed.
- Flashing Fast = Automatic Rearming or Last Door Arming is in progress.

Zone Violation: If the system is activated, the Status Light will start to flash a code to indicate which protected circuit caused the activation. This Zone Violation code will then be seen at all times, until the ignition switch is turned on, which clears the system's memory.

- Flash-1x & Pause = The system was activated by an optional sensor.
- Flash-3x & Pause = The system was activated by the hood or trunk circuit.
- Flash-4x & Pause = The system was activated the door circuit or Current Sensing.

If the unit has multiple violations involving different zones, the Status Light shows the most recent until the system is Disarmed, after which it shows the codes for the last two violations until turning on the ignition clears the system's memory.

While in the Valet Mode, the remote keyless entry system will still operate the vehicle's power doorlocks, but this will have no effect on the AL-100C. It will not Arm automatically from Automatic Rearming or Last Door Arming (if the later is programmed to operate), nor can it be Armed from the keyless entry transmitter. Also, while in Valet Mode the system will not engage the starter interrupt.

To remove the system from the Valet Mode, simply press and release the Valet Switch. The system will instantly revert to the disarmed condition, as confirmed by the Status Light, which will instantly change from constantly lighted to off.

Remember, Valet Mode only operates when the system is disarmed - an armed state or fully activated state requires using the Override.

Override: In the event the remote keyless entry transmitter is lost, damaged, or otherwise inoperable, the Valet Switch and your ignition key can be used to disarm the AL-100C.

How to Override, or Disarm the System Without the Transmitter

Step 1 - With the system in the armed condition, enter via the driver's door (be aware that the system will activate when the door is opened, sounding the horn, flashing the lights, and locking the doors if the door entered is closed again before disarming the system.

Step 2 - Using your key, turn the ignition on.

Step 3 - Within the next 10 seconds press and release the Valet Switch once.

The system will Disarm, chirping the horn twice and extinguishing the Status Light.

chirping twice and the parking lights flashing twice, then turning on for 60 seconds to illuminate the way to your vehicle. During this 60 second period of illumination, if the ignition switch is turned on the lights will immediately turn off. The AL-100C should not Disarm by operating the doorlocking switch inside the vehicle.

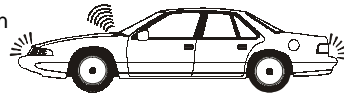
**To Disarm,
Simply Unlock
the Doors
Remotely**



The AL-100C will:

Chirp the horn the horn twice

Flash the lights twice,
then leave them on
for 60 seconds



If the transmitter is not available or inoperative, the system may also be disarmed by performing an Override, which is explained on pages 10-11.

In most applications, if your remote keyless entry is equipped to remotely open the vehicle's trunk or rear hatch, doing so will also disarm the AL-100C, with the same responses described above. As previously described, if the Disarm confirmation is 4 horn chirps and 4 light flashes, the system was activated and reset while you were away. This special Disarm confirmation, and the Zone Violation code being displayed by the Status Light, will return to normal after the ignition switch has been turned on.

After the AL-100C is Disarmed, if a door is not opened the **Automatic Rearming** feature has the system rearm itself and lock the doors 90 seconds after it was Disarmed. Automatic

Rearming ensures that your system is never inadvertently or accidentally disarmed. Items of note regarding the Automatic Rearming operation are:

- ✓ Upon Disarming, the red Status Light will flash rapidly to indicate that the system will rearm and lock the doors 90 seconds later.
- ✓ Turning on the vehicle's ignition cancels Automatic Rearming.
- ✓ Opening a door will either cancel, or suspend, the Automatic Rearming.
 - If Last Door Arming is not turned on, opening a door will completely cancel Automatic Rearming.
 - If Last Door Arming is turned on, opening a door will cancel Automatic Rearming, but when the door is shut the 30 second Last Door Arming countdown starts.
- ✓ If a different protected zone, for example the trunk or hood, is opened after Disarming, the 90 second Automatic Rearming countdown is only suspended; a new 90 second countdown will start when it is closed.
- ✓ If the system is Disarmed while it is triggered, or after it has triggered and reset, the rapidly flashing Status Light which indicates the Automatic Rearming in progress is replaced by a Zone Violation flash code. The system will still have Automatic Rearming.

The Valet Switch - Valet Mode and Override

The Valet Switch allows the user to suspend certain functions of the AL-100C's normal operations, especially the prevention of the system from becoming Armed. It can also be used for an emergency override disarming of an Armed or Activated system, should the remote keyless entry transmitter be unavailable or inoperative. These are two separate and distinct operations: the first is **Valet Mode**, whereby a *Disarmed* system may be placed into an "off" condition (Valet Mode) without use of the ignition key; the second operation is **Override**,

which will disarm an *Armed or Activated* system and requires the use of the ignition key.

The Valet Switch is typically contained within the same housing as the Status Light (left, is the bottom of this housing), or the installer may have placed it in its own hidden



location (right, is the Valet Switch itself). In either case, the Valet Switch should be readily accessible, and if you are unaware of its location, have the installing dealer show you its location and explain its operation. The Valet Switch is a critical part of your AL-100C system!



- **Use Valet Mode to temporarily prevent Automatic Rearming or Last Door Arming.**

Valet Mode : This feature is used to prevent the system from becoming armed, and can be utilized anytime the security system is in the Disarmed state. Most other security systems require the ignition switch to be on to enter Valet Mode, but with the AL-100C, to enter Valet Mode the ignition can be either on or off as long as the system is Disarmed. To enter Valet Mode:

- ✓ Simply press and hold the Valet Switch for 2 seconds to enter the Valet Mode.
- ✓ The system will confirm it has entered Valet Mode with two horn chirps, two parking light flashes and the Status Light will illuminate and then stay on constantly.

The system will remain in Valet Mode until it is removed, regardless of whether the ignition is turned on or off, or even if the vehicle's battery is disconnected and reconnected.