



ACE 7500

Complete Owner's Manual

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Clifford systems are covered by one or more of these
Clifford Electronics USA patents: 4,158,874; 4,233,642;
4,327,444; 4,383,242; 4,430,685; 4,845,464; 4,887,064;
4,890,108; 4,922,224; 4,997,053; 5,081,667; 5,146,215;
5,157,375; 5,467,070; 5,650,744 and other patents pending

Always exercise good judgment and common sense when using the remote starter:

- **NEVER remotely start the engine if parked in an enclosed area lacking sufficient ventilation.**
- **NEVER allow children access to the remote controls.**
- **NEVER engage the ShortStop or AutoStart feature if parked in an enclosed area lacking sufficient ventilation.**
- **NEVER remotely start or use ShortStop with a person or pet in the vehicle.**
- **NEVER start with someone behind or in front of the vehicle.**

Standard Features

The following are standard features of this system. Some vehicles may require optional parts/wiring and a few are incompatible with some features.

- | | |
|---|---|
| <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Lifetime warranty (see terms & conditions) <input checked="" type="checkbox"/> AntiTheft guarantee (see terms & conditions) <input checked="" type="checkbox"/> One master remote, one companion remote <ul style="list-style-type: none"> ■ Extended range ■ ACG 2™ anti-codegrabbing protection ■ Low remote control battery warning <input checked="" type="checkbox"/> Remote engine starting <ul style="list-style-type: none"> ■ Automatic safety pre-remote-start checks ■ Auto engine shutdown upon intrusion attempt ■ Cold weather cranking ■ AutoShutDown after 30 minutes if unattended (duration adjustable via CliffNet Wizard) ■ Prevents accidental starter motor “grinding” ■ ShortStop: arm while idling for brief errands ■ Automatic transmission compatibility ■ Manual transmission compatibility ■ Gasoline & diesel compatibility ■ LowBattery AutoStart recharging ■ LowTemp AutoStart warm-up <input checked="" type="checkbox"/> PlainView 2™ coded valet mode <ul style="list-style-type: none"> ■ Select your own secret code <input checked="" type="checkbox"/> BlackJax anti-carjacking/self-recovery system <input checked="" type="checkbox"/> Built-in two-point AutoImmobilizer <input checked="" type="checkbox"/> Remotely adjustable Dual-Zone Piezo Sensor detects both minor impacts and theft-related tampering <input checked="" type="checkbox"/> Glass Tampering Sensor detects attempts to break windows <input checked="" type="checkbox"/> G4 CliffNet DataPort input <ul style="list-style-type: none"> ■ For complete optional control via your Windows PC ■ For smart G4 CliffNet accessory interfacing <input checked="" type="checkbox"/> Passive AutoArming if you forget to arm <ul style="list-style-type: none"> ■ Lock upon AutoArming self-locking ■ Visual AutoArming countdown confirmation ■ Instant AutoArm bypass <input checked="" type="checkbox"/> Extended accessory power after ignition off | <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Ignition or RPM controlled AutoLocking/AutoUnlocking <input checked="" type="checkbox"/> High-Output Insignia Siren <ul style="list-style-type: none"> ■ Remote controlled chirp muting ■ Long-term selectable chirp muting ■ Remote siren silencing if falsely triggered <input checked="" type="checkbox"/> Remote controlled valet mode <input checked="" type="checkbox"/> FACT anti-false alarm circuitry <input checked="" type="checkbox"/> Power door lock control (some vehicles may require optional relays) <input checked="" type="checkbox"/> Smart optional remote trunk release <input checked="" type="checkbox"/> Built-in parking light flasher <input checked="" type="checkbox"/> Courtesy light(s) turn on when you remotely disarm <input checked="" type="checkbox"/> Selectable headlights-left-on warning tone <input checked="" type="checkbox"/> Smart AutoTesting self-diagnostics <ul style="list-style-type: none"> ■ With specific trigger & sensor identification <input checked="" type="checkbox"/> Malfunction AutoBypass <ul style="list-style-type: none"> ■ Automatic remonitoring if trunk/hood was open when arming <input checked="" type="checkbox"/> Smart Prior Intrusion Attempt Alert <ul style="list-style-type: none"> ■ With specific trigger & sensor identification <input checked="" type="checkbox"/> TotalRecall 8-event trigger/sensor report <ul style="list-style-type: none"> ■ With specific trigger & sensor identification <input checked="" type="checkbox"/> Remote control code learning <input checked="" type="checkbox"/> Clear all remotes if ever lost or stolen <input checked="" type="checkbox"/> LED status indicator <ul style="list-style-type: none"> ■ Flash indications reveal status ■ Automatic battery saving mode <input checked="" type="checkbox"/> Multicar control from the same remote <input checked="" type="checkbox"/> User-programmable features <ul style="list-style-type: none"> ■ SecureAccess coded programming ■ Programmable even while driving |
|---|---|

Maintenance

Your Clifford system requires no maintenance except for periodic replacement of the remote control batteries. This product, like any electrical device in your vehicle, requires your car battery be in proper working order and fully charged. To ensure proper operation, periodically have your vehicle battery “load-checked” at any local garage/mechanic. Also make sure the battery cables and connections are tight and free from corrosion.

Welcome to the world of

high-technology vehicle security and convenience

Congratulations on the purchase of your Clifford Electronics mobile security/convenience system. Clifford Electronics has long been recognized as the leading manufacturer of high-technology vehicle security systems. Our commitment to technological innovation, quality and reliability is clearly evident in your Clifford system. Yet despite all its sophistication, your system is amazingly easy to use, never more difficult than a few presses of a button.

BlackJax vehicle recovery/anti-carjacking feature

ACE 7500's BlackJax feature provides a safe and effective means of recovering your vehicle after a theft or carjacking. In a carjacking situation, the sooner you are out of the car the better. Don't resist or take anything with you, just get out and get away. The instant the car door is opened, your ACE 7500 takes charge. First it allows the carjacker to drive a short distance, ensuring your safety. Then it repeatedly flashes the brake lights and continuously sounds the siren to caution nearby drivers and draw attention to your stolen vehicle. The system ignores the remote control at this point (since the carjacker most likely has it). Then when the carjacker slows for a turn or traffic, BlackJax safely shuts down the engine and prevents it from being restarted.

ACE 7500 assures the thief cannot restart the engine even if he were to find and remove the system control unit. Unable to restart the engine, and with your vehicle stalled in the middle of traffic — siren wailing and lights flashing — the carjacker has no choice but to abandon your car. (The same occurs to anyone who steals your parked car from you at a gas station or in a parking lot, which are the most common carjacking sites). To recover your vehicle, you simply walk a block or two to your car, enter your PIN (personal identification number) code, and the system releases control of the vehicle to you.

Your secret PIN code tells the system that the car is being driven by an authorized person. If you or a passenger opens and closes a car door at any point while the engine is running (as would occur in a carjacking attempt), *you must again enter your secret code.*

VERY IMPORTANT: The factory setting for the anti-carjacking feature is OFF. Once you are familiar with the following, we suggest you turn this feature ON (see the User-selectable features section). When anti-carjacking is on, each time you begin driving you MUST enter your PIN code via the PlainView 2 switch on the dashboard or console (unless the system is in valet mode). You may turn this feature on or off any time.

Enable/disable the anti-carjacking feature

You may enable or disable the BlackJax anti-carjacking feature (see *User-selectable features*) or temporarily override it via PlainView 2 Coded Valet Mode.

Your secret disarming PIN code

Unless the BlackJax anti-carjacking feature is turned off or the system is in valet mode, 20 seconds after you switch on the ignition and press the brake (or open and close a door while the engine is running), you **must** enter your secret disarming PIN code on the PlainView 2 switch (mounted on the dashboard or console) to let the system know it is you who is driving.

Your system's factory-set PIN code is the single digit 2.

Entering a code

To enter your code, press the ★ button the appropriate number of times on the PlainView 2 switch on the dashboard or console followed by the blank button. To enter a zero, you simply press the blank button.

EXAMPLE: To enter the factory-set code of 2, you would press and release the switch in this manner: ★★ blank.

EXAMPLE: To enter a code of 1203, you would press: ★ blank, ★★ blank, blank, ★★★ blank.

IMPORTANT: What you MUST do to drive your car

If you have the BlackJax feature turned on, until you set your own PIN code, you will use the factory-set code of "2." To drive your car, do the following:

1. Shut all doors, then start the engine.
2. Enter the factory-set disarming code of 2: ★★ blank (you may do this while driving, if you wish).
3. The dashboard LED will flash on for an instant to confirm proper code entry. You may now drive or continue driving the vehicle.

What you MUST do if you hear 5 siren chirps while driving

If you forget to enter the code, the system will remind you 20 seconds after you begin driving by "chirping" the siren 5 times and flashing the LED. At this point, you have another 20 seconds to enter your code. When entered, the LED will stop flashing and the siren will chirp once to confirm proper code entry. If the proper code is **not** entered within 20 seconds after the 5-chirp signal, the engine will shut down as soon as you slow for traffic or a turn. You may enter your disarming code even after the engine is shut down. Once the proper disarming code is entered, you will be able to resume driving.

"Guessing" your code won't help a carjacker

What if the carjacker is familiar with Clifford's patented PlainView 2 coding system and tries guessing codes at random? No problem. After three incorrect codes are entered, the system will ignore any further code entries for a short time. So even if the carjacker were to actually stumble upon your code during this time, he would *still* not be able to silence your system or restart the engine.

How to set your own valet/disarming PIN code

Your secret valet/disarming PIN code will be used to deactivate BlackJax, enter valet mode and enter programming mode. You may choose any 1-4-digit PIN code, but the first digit must not be a zero (e.g., 1023 is a valid code, 0123 is not). See *User-selectable features*. Let's say you want to set a PIN code of 4301:

1. From the *Table of user-selectable features*, you would note that the *Set a new secret valet/disarming PIN code* feature is in column 2, row 7.
2. Enter program mode by turning on the ignition, entering your current code, then pressing and holding the ★ button of the PlainView 2 switch for 3 seconds until you hear a chirp.
3. Select column 2 by pressing the blank button twice. After a brief pause, you will hear 2 chirps to confirm that you have selected feature column 2.
4. Within 5 seconds, select row 7 by pressing and releasing the ★ button 7 times. To help you count, you will hear a chirp each time you press the ★ button. After 7 presses, **immediately** press the blank button, then **immediately** enter your new code.

Example: To enter 4301 as your new code, you would press the switch buttons in this manner: ★★ blank, ★★ blank, blank, ★ blank.

5. **Wait** for the 2-chirp confirmation.
6. Turn off the ignition to exit program mode (you'll hear a 3-chirp confirmation).
7. **VERY IMPORTANT: You must immediately test your new valet/disarming PIN code:** Turn on the ignition, enter your new code, then press and hold the blank button for 4 seconds. The LED will illuminate to indicate that the system is in valet mode. Turn the ignition off. The system is now in valet mode.

If the LED does not illuminate, the new code you programmed and the one you just entered do not match. In such a case, the system will revert to the previous code.

8. To exit valet mode and return to normal operation, turn the ignition on and enter your code.

Your remote controls

The 5-button master remote control and the 4-button companion remote are sophisticated miniature radio transmitters each powered by a tiny battery (12-volt alkaline for the master remote, a 3-volt lithium battery for the companion remote). A weak remote control battery will reduce range (the system will warn you if the battery in your remote is nearing the end of its useful life, see the *Low battery warning* section for details). Electrical/radio frequency interference, obstructions, weather conditions and even sunspots can interrupt the signal from your remote to the system. The remote controls are the keys to your system. But these remote controls are much more secure than car keys because each incorporates our ACG 2 (Anti-CodeGrabbing 2) technology with trillions of digital codes for the ultimate protection against remote control cloning devices. You will use your ACE 7500 remote control to arm and disarm the system, lock and unlock the doors, remotely start or shut down the engine, activate/deactivate the panic feature, enter/exit valet mode and command options such as a remote trunk release, power window control, electric garage door interface, etc.

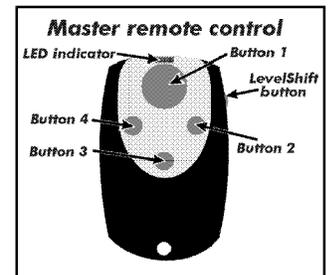
Remotely controlling your Clifford system

TO ARM: Press button 1 (master remote) or button  (companion remote). Upon arming: two siren chirps, two parking light flashes, dashboard LED flashes repeatedly and doors lock.

TO DISARM: Press button 1 (master remote) or button  (companion remote). Upon disarming: one chirp, one parking light flash, LED turns off, doors unlock and the interior lights turn on.

TO ARM OR DISARM SILENTLY: Simultaneously press button 3 (master remote) or both the  button **and** the ★ button (companion remote) to arm or disarm without chirp acknowledgments.

TO PANIC: For three seconds, *continually* press button 1 (master remote) or button  (companion remote). The parking lights will flash repeatedly and the siren will blare for 30 seconds. If the ignition is on (indicating you are in the car), the doors will automatically lock to prevent an assailant from entering (note: some vehicles are unable to lock the doors while the ignition is on). If the ignition is off, the doors will unlock, allowing you to enter immediately without fumbling with your keys.



TO REMOTELY OPEN THE TRUNK: If you have this option, press button 2 (master remote) or button  (companion remote) while the system is in its disarmed state.

TO REMOTELY START THE ENGINE: Press button 4 or button ★ to remotely start the engine (or shut it down if idling under the system's control). See **Remote Engine Starting DOs and DON'Ts** for important information on this topic.

TO TURN VALET MODE ON OR OFF: Press the master remote LevelShift button twice, then button 1 or press both buttons ★★ **and** ★ to enable/exit valet mode.

TO REMOTELY OPEN OR VENT WINDOWS: If you have this option, press the master remote LevelShift button once, then button 2 or press buttons  **and**  (companion remote) after disarming to fully open the windows controlled by SmartWindows 4. On hot days, press this button combination right after arming to vent the windows slightly while the system remains armed.

OTHER FEATURES AND OPTIONS: Other system features and options can be accessed as noted in the following *Quick Reference* table:

QUICK REFERENCE: REMOTE CONTROL FUNCTIONS

Function	Companion Remote Button(s)	Master Remote	
		LevelShift	Button
Arm or disarm and lock or unlock the doors		no	1
Optional wired accessory #1* (usually optional trunk release)		no	2
Silently arm or disarm and lock or unlock the doors	+	no	3
Remotely start the engine		no	4
Unassigned*	+	1 time	1
Unassigned or SmartWindows 4 accessory full open or vent*	+	1 time	2
Unassigned*	+ +	1 time	3
Unassigned*		1 time	4
Remote valet mode entry/exit	+ +	2 times	1
Unassigned*	+ +	2 times	2
LowTemp/Battery AutoStart or manual transmission SafeStart	+	2 times	3
Unassigned*		2 times	4
Unassigned*		3 times	1
Unassigned*		3 times	2
Remotely adjust sensitivity of the Dual-Zone Piezo Sensor		3 times	3
Unassigned*		3 times	4

* These buttons/channels can be assigned to control Clifford systems and accessories on your other vehicles.

ACG 2 (Anti-CodeGrabbing 2™)

ACG 2 protects you and your automobile from code-grabbing devices. Code-grabbers literally record, from hundreds of feet away, the code sent by your car alarm remote control (code-grabbers are very similar to, but simpler than, cellphone “cloning” devices). The thief then plays back the code when you’re gone, instantly disarming the alarm and unlocking the doors. It’s like leaving your keys and remote in the door. Many non-Clifford alarms can be defeated that easily, and some of the latest “smart” code-grabbers can even decipher the code hopping/jumping sequence used by other car alarm manufacturers. In contrast, your ACE 7500 uses complex digital signal processing and unbreachable code encryption to randomly change the digital code every time you use the remote control. Your remotes will **never** transmit the same code twice, and the control unit will **never** accept the same code twice. Thus the code played back by the code-grabber — even the latest generation smart code-grabbers — will never be accepted by your ACE 7500 system.

Automatic remote control low-battery warning

If your remote control battery is low, you’ll hear a rapid 5-chirp sequence when you disarm instead of the usual one chirp (with the Self-Powered SmartSiren 4 option, you’ll hear a low-pitched chirp). Replacement batteries are available from any Authorized Clifford Dealer.

Remote control battery replacement

Replacement of a remote control battery is fairly easy, but any Authorized Clifford Dealer will be happy to do it for you without cost provided that you buy the replacement battery at their shop (it’s also a good idea to keep a spare of each battery in your glove box just in case).

Master remote:

1. Unscrew the retaining screw on the back of the remote control.
2. Carefully pry apart the remote control case with your fingernails or a small, thin screwdriver blade near the keyring opening (you may leave the keyring in place).
3. Remove the old battery noting the + and – indications and replace it with the new one.
4. Put the enclosure back together by first aligning the LevelShift button side, then the top of the remote, then snap the case back together at the bottom.
5. Reinsert the retaining screw but **DO NOT OVERTIGHTEN**.

Companion remote:

1. Insert a small, thin screwdriver blade in the slot near the keyring opening (you may leave the keyring in place) and turn it to separate the two halves.
2. Remove the old battery noting the + and – indications and replace it with the new one.
3. Put the enclosure back together by first aligning the top of the remote, then snapping the case back together at the bottom.

Adding new remote controls

For other drivers, or to control Clifford G4 systems on your other cars with the same remote, you can buy additional remote controls from any Clifford Dealer (or direct from the Customer Service Department of your nearest Clifford Headquarters listed on the front cover) and program them into the system yourself. Your ACE 7500 will respond to as many as four remote controls.

NOTE: Clifford G4 systems will respond only to G4-type ACG 2 remote controls. Older Clifford ACG and non-ACG remote controls are not compatible with G4 systems.

To add a new **master** 5-button remote control, use the *Add new master remote* feature (column 1, row 1) of the *User-selectable features* table. To add a new **companion** 4-button remote, program each button and button combination to the specific functions noted in column 4.

Two-Point AutoImmobilization

While armed, your system immobilizes both the starter and ignition systems of your vehicle to prevent a thief from starting the engine. The engine will remain immobilized even if a thief were to cut power to the system or find and remove the system control unit.

Optional Wireless Immobilizer™

Clifford's optional Wireless Immobilizer interrupts a third point in the vehicle, such as the fuel pump. This Clifford innovation provides immobilization without any wires to the control unit, so a thief could not find the Wireless Immobilizer even if he tried tracing the system wires! Operation of the Wireless Immobilizer is automatic and user-transparent.

BE sure to keep the record your Clifford installer provides as to the location of the Wireless Immobilizer in case your vehicle needs future servicing.

NOTE: If your vehicle's engine ever stalls, the Wireless Immobilizer WILL engage. You must turn the ignition all the way to "OFF" in order to restart.

False Alarm Prevention & FACT™

With FACT (False Alarm Control and Test), you'll never experience repeated false alarms. If the siren sounds, DO NOT disarm; allow it to run for the full siren duration. Before sounding the siren a second time, the system automatically checks for another activated sensor or trigger to verify that an intrusion is in progress. This feature is user-selectable.

How to interpret the LED status indicator

LED Condition	Meaning
Off	System is disarmed and in normal operating mode (i.e., valet mode is off)
On	Valet mode is on, the vehicle may be entered without having to disarm
Flashing rapidly (ignition off)	System is armed and protecting your vehicle
Flashing rapidly (ignition on)	BlackJax anti-carjacking mode has been engaged, enter your valet/disarming code IMMEDIATELY
Flashes, pause, flashes	Either an error (such as arming with the trunk open) or indicates the trigger or sensor that was tripped

Automatic Battery-Saving Mode

To conserve vehicle battery power (the LED actually draws more current than the entire control unit), if the system has remained continuously armed for 48 hours, the flash rate will automatically slow to half the normal rate. After 96 hours, it slows to one-quarter.

User-Selectable AutoArming™

If you forget to remotely arm, the system automatically arms itself 30 seconds *after* the doors are closed. For your convenience, if you re-open any door(s) within the 30-second countdown, AutoArming restarts the 30-second delay from the beginning after all doors are closed. ACE 7500 has these additional features:

- **AutoArming entry delay:** If you temporarily lose the use of your remote controls, you may turn on the AutoArming entry delay feature. If this feature and AutoArming are turned on, it allows you to enter the car (if it previously AutoArmed) and silently disarm the system by turning on the ignition within 15 seconds of opening the door. See *User-selectable features* (column 3, row 3).
- **Visual acknowledgment:** Five seconds after you exit, close all the doors and the interior light has turned off, the indicator lights flash twice to confirm the AutoArming countdown is progressing. Then, 25 seconds later, the system will AutoArm.
- **Lock upon AutoArming:** To ensure you can't accidentally lock your keys inside the car, the system is factory-set *not* to lock the doors upon AutoArming. To change this setting, see *User-selectable features*.
- **Instant AutoArming bypass:** Prevents AutoArming when fueling the vehicle and at other times when you wish to temporarily bypass AutoArming. To activate Instant AutoArming Bypass, rapidly turn the ignition switch to "ON" then "OFF." You will hear a siren chirp to confirm that the system will not AutoArm. The system automatically reverts to its normal operating mode when you next start the engine.

User-Selectable Headlight Reminder

You can set your system to issue a warning tone if you attempt to exit the vehicle without turning off the headlights. Since many vehicles already have a similar feature, or have delayed headlights, this feature is factory set to off.

PlainView 2 Coded Valet Mode

All car alarms have a valet mode that turns off the security features. This mode turns off the alarm if the system is not responding to the remote. However, thieves disable other alarms by flicking this easy-to-find “hidden” valet switch. In contrast, your system has safeguards that ensure a thief cannot enable the valet mode as a way of “turning off” your system. To enable valet mode, the driver must first enter the secret valet/disarming PIN (personal identification number) code — the same PIN code described in the BlackJax anti-carjacking section — on the PlainView 2 switch mounted on your vehicle’s dash or console. When the system is in valet mode, it overrides AutoArming and all other security features, which is handy when refueling or washing your car.

The system’s factory-set valet/disarming PIN code is 2: ★★ blank.

NOTE: If you temporarily lose the use of your remote controls, you can disarm the system by enabling valet mode.

Entering a code

To enter your PIN code, press the ★ button the appropriate number of times on the PlainView 2 switch followed by the blank button. To enter a zero, you simply press the blank button.

EXAMPLE: To enter a code of 1203, you would press: ★ blank, ★★ blank, blank, ★★★ blank.

To enable valet mode

1. Turn the ignition switch to its “ON” position or start the engine if it is not already running.
2. Enter your valet/disarming PIN code on the PlainView 2 switch.
3. *Continue* pressing the blank button for 4 seconds. Release the button. The LED will continue to remain on for ongoing visual confirmation of valet mode.

To exit valet mode and restore normal operation

1. Turn the ignition switch to its “ON” position or start the engine if it is not already running.
2. Enter your valet/disarming PIN code on the PlainView 2 switch. The LED will turn off.

Remote Controlled Valet Mode

Valet mode turns off all security features and prevents AutoArming when, for instance, having your car washed. To turn valet mode on/off, simultaneously press buttons ★★ and ★. Two parking light flashes confirm valet mode on, one flash confirms valet mode off. The dashboard LED will glow continuously when valet mode is on. Your system remains in valet mode until you again press buttons ★★ and ★ to turn it off and restore normal operation. This is a user-selectable feature and may be programmed off if you wish to use this button combination for a different function.

User-Selectable AutoLock and AutoUnLock™

Some vehicles are incompatible with the AutoLock and AutoUnLock features.

For your safety and that of your passengers, the doors can be set to automatically lock the instant you turn on the ignition or when the engine RPMs reach about twice the idle speed, whichever you prefer. When you turn the ignition off, AutoUnLock automatically unlocks the doors. These are user-selectable features.

Dual-Zone Piezo Sensor & Glass Tampering Sensor

The Dual-Zone Piezo Sensor detects theft-related vibrations/ impacts and triggers the alarm. It also has a secondary warning zone that can detect less serious occurrences — such as someone bumping your car with their car door — and will sound a brief warning tone. If needed, you can adjust sensitivity of these sensor zones via your remote control as described in the following section. Today’s thieves shatter vehicle windows with a small metal punch device that does not create any vibrations for an impact sensor to detect. The Glass Tampering Sensor detects the sound of glass breaking and triggers the alarm. It will detect most *attempts*, even if the glass does not break in the attempt. The Glass Tampering Sensor rarely ever needs readjustment, but, if needed, can be readjusted by any Authorized Clifford Dealer (preferably your installing dealer).

To prevent falsing, system sensors are bypassed when the engine is remotely started. Ask your Authorized Clifford Dealer about this optional sensor that will further enhance the security of your vehicle:

- **Digital Tilt/Motion Sensor:** Detects less than one degree of lifting or any minute motion of the vehicle while completely ignoring all other conditions that falsely set off all other sensors. Even if you park on a hill, the Digital Tilt/Motion Sensor will accurately respond to the first hint of tampering to reliably protect your wheels and entire vehicle.

Remote controlled Piezo Sensor zone adjustments

If the setting(s) of the sensor zones are either too sensitive or not sensitive enough, you may test and adjust them with the master remote control:

1. **Disarm** the system with the master remote control.
2. On the master remote, press the LevelShift three times, then button 3. You will hear one chirp and the LED will turn on.
3. To test the **primary** (alarm) zone, press button 4 (you will hear a 4-chirp confirmation), then firmly “thump” the top of the A-pillar (the area between the side windows near the roof) heel of your fist. If the impact is strong enough to trigger the primary zone, you will hear a siren chirp. To change sensitivity, press button 4 to reduce sensitivity, button 2 to increase sensitivity. Two chirps will acknowledge each sensitivity increase, one chirp will confirm each decrease. You can test the new setting by again thumping the top of the A-pillar. You may now press **button 3** to adjust the warning zone (as noted in 3a. below), or press **button 1** to fully exit the sensor adjustment mode (you will hear 3 chirps).
 - a. For the Piezo Sensor warning zone, press button 3 (you’ll hear 1 chirp). Then use the same procedure as above, but thump less forcefully for the warning zone. When done, press button 1 to reselect the primary zone (you will hear 2 chirps), then button 1 again to fully exit sensor adjustment mode (you will hear 3 chirps).

Smart trunk release option

If you have this option, you may use the  button to remotely release the trunk latch. The system's electronic interlock prevents unintentional activation of the remote trunk release when you drive, or when the system is armed. The Smart Trunk Release feature requires installer programming, so if you have the optional trunk release installed, you may want to verify that it will NOT activate when the system is armed. If it can be activated while armed, causing the alarm to sound, please return to your installing Clifford Dealer and have them correct this (it only takes a couple minutes and there will be no charge to you).

High-Output Insignia Siren

This Clifford-engineered siren is more rugged than generic sirens and has these features:

- **Remote siren silencing:** If triggered by a non-threatening event, you can silence the siren without remotely disarming. Press button 1 on the master remote or button  on the companion remote while the siren is sounding. Two chirps confirm that the sensor activated the alarm and the system is *remaining* armed. Four chirps confirm that the system is still armed, but that the ignition is on or the hood, trunk or a door is open and that this may indeed be a *genuine* theft attempt.
- **Automatic noise abatement:** Alarm sounding is limited to five siren duration cycles even if a door is left open in the wake of an intrusion.
- **Long-term chirp silencing:** You may silence the arm and disarm chirps on a long-term basis until you decide to restore them. Your vehicle's parking light flashes will continue to provide visual confirmation of remote controlled system arming and disarming. See *User-selectable features*.
- **Selectable siren duration:** You may change the factory set 30-second siren duration to 60 or 90 seconds via the programming procedure or via the CliffNet Wizard software. See *User-selectable features*.
- **Personalized Siren Sounds (requires the Self-Powered SmartSiren 4 option):** The optional Self-Powered SmartSiren 4 sounds six different alarm sounds. With the optional CliffNet Wizard software and DataPort Replicator Cable, you may select up to six sounds from more than a dozen different siren sound choices for truly unique customization.
- **Choose when your Personalized Siren Sounds play:** With the optional CliffNet Wizard software and DataPort Replicator Cable, you may choose to have your Personalized Siren Sounds “play” every time the alarm is set off, or you may set the system to sound them only upon trigger activation. When set to “trigger only” the basic siren wail will sound if a *sensor* is activated, but the Personalized Siren Sounds will play if the hood, trunk or a door is opened.

SmartPowerUp™ 2

If power is removed, SmartPowerUp 2 ensures the system automatically restores itself to its previous state when power is restored. So if a thief disconnects the power and then restores it in an attempt to start the car, the system will re-arm and instantly sound the siren while continuing to immobilize the starter. If your vehicle is to be serviced by a mechanic, just put the system in valet mode. If the mechanic needs to interrupt power, your system will automatically return to its valet mode state when power is restored; there will be no alarm activation.

Smart AutoTesting™

Each time you remotely arm the system, it tests all triggers and sensors. If the **hood or trunk** is open, the system will **immediately** sound **4 chirps** and **4 indicator light flashes** instead of the usual 2 and 2. If a **door** is ajar, you'll receive 2 chirps and 2 flashes, then, **5 seconds later**, there will be **4 chirps** and **4 flashes**. If a **sensor** is malfunctioning, you will receive the usual 2 chirps and 2 flashes, then, **10 seconds later**, there will be **4 chirps** and **4 flashes**.

NOTE: Since this is a warning indication, you will hear the 4 chirps even if you use the chirp muting feature.

- **Specific malfunction identification:** The system can also indicate the **specific** trigger or sensor that is malfunctioning. If you get the 4-chirp/4-flash signal upon arming, perform the following to identify the malfunctioning trigger or sensor:

1. Remotely disarm, then turn on the ignition. The LED status indicator inside your vehicle will be flashing, pause, then repeat.
2. Count the number of flashes in one cycle between pauses (for your convenience, the flash cycle repeats a total of 5 times) and refer to the chart below:

LED flashes	Meaning
1 flash	Activation of Glass Tampering Sensor
2 flashes	Activation of Piezo Sensor
4 flashes*	Door open/ajar
5 flashes	Trunk open or ajar
6 flashes	Hood open or ajar
7 flashes	Ignition switch was turned on while the system was armed
8 flashes	Three or more incorrect valet codes were entered
10 flashes	Power tampering or the vehicle battery is very low

* If your vehicle has a factory-installed feature that turns off or dims the interior courtesy lights several seconds after you exit the vehicle, the system cannot provide this indication.

Automatic malfunction bypass with AutoReMonitoring™

The system automatically bypasses any faulty point and arms all *other* triggers and sensors for the utmost possible protection. If you accidentally arm with the hood, trunk or a door open, just close it (no need to disarm-and-rearm) and the system will again monitor that point.

Smart prior intrusion attempt alert

If you hear three chirps when you disarm, it means that a trigger or sensor was activated in your absence. When you turn on the ignition, the LED will flash 1-8 times, pause, then repeat the flash cycle 4 more times. Count the flashes in one cycle and refer to the chart above.

Multiple-event TotalRecall™

The system's memory records the identity of the last eight activated or malfunctioning triggers and sensors, which allows your installer to instantly track down malfunctions. To identify the triggers and sensors held in the system's memory, use the following procedure:

1. Remotely arm and disarm while pressing the blank button on the PlainView 2 switch.
2. The LED will flash 1-10 times to indicate the most recently activated point, pause, flash 1-10 times for the second most recent point, and so on.
3. Write down the number of flashes between pauses and refer to the chart above.

With the optional CliffNet Wizard, you'll see this chronological report right on screen.

Optional CliffNet Wizard™ & DataPort Interface Connector

If you opted to have the Clifford DataPort interface connector installed with your system, you can use our CliffNet Wizard software to access your system through your Windows PC. CliffNet Wizard will show you, on your PC screen, all your user-programmable feature settings. You can change settings simply by mouse-clicking the graphical button for each feature. You can customize features, add or delete remote controls, change remote control button assignments, view a chronological history of trigger and sensor activations, and much more. It's actually fun! And secure. To learn more and download this free software, go to www.clifford.com/wizard.

REMOTE ENGINE STARTING

Important Remote Starting DOs and DON'Ts

- DOs**
- **Park in an open, well-ventilated area.**
 - **Always engage the handbrake.**
 - **Make sure you put the transmission in PARK (automatic) or NEUTRAL (manual) before shutting down the engine.**
 - **Set your vehicle's air conditioner, heater and other accessories to the desired levels.**
 - **Turn on your vehicle's ventilation "recirculate" feature to warm/cool the interior more efficiently.**
 - **If your vehicle has a manual transmission, you must use the manual transmission SafeStart procedure.**
 - **Before engaging AutoStart, make sure the fuel tank is full.**

- DON'Ts**
- **NEVER remotely start your vehicle's engine if parked in an enclosed area that lacks sufficient ventilation.**
 - **NEVER allow children access to the remote controls.**
 - **NEVER engage the ShortStop or AutoStart feature if parked in an enclosed area that lacks sufficient ventilation.**
 - **NEVER remotely start or use ShortStop with a person or pet in the vehicle.**
 - **NEVER start with someone behind or in front of the vehicle.**

Diesel compatibility

The system will activate the engine's glowplugs for the necessary duration before starting., either via a timer delay or through a direct connection to your vehicle's glowplug indicator (may require optional parts and wiring).

How to remotely start/shutdown the engine

Press button 4 on the master remote control or button ★ on the companion remote:

- Two parking light flashes confirm startup initiation.
- The engine and preset accessories (air conditioner, heater, etc.) will start and run.
- While idling, the parking lights stay on for ongoing confirmation visual confirmation.

When idling under the control of your ACE 7500, you may shut down the engine by again pressing button 4 (master remote) or button ★ (companion remote).

To drive the vehicle after remote starting

1. Disarm, enter, but don't touch the brake or transmission.
2. Insert your key and turn the ignition switch all the way on.
3. Press the brake. Your vehicle will now operate normally.

ShortStop

When you stop for a brief errand, rather than shut down and then restart the engine moments later, you may remove your car keys and remotely arm *without* shutting down the engine:

1. Park, place the transmission in park or neutral and engage the handbrake.
2. Without touching the brake, press button 4 (master) or button ★ (companion). Two parking light flashes will confirm this action.
3. Turn the ignition off and remove your keys. The engine will continue to idle.
4. Exit and arm with the remote control. The engine will continue to idle under the control of your system for up to 30 minutes.
5. When you return, use the *To drive the vehicle after remote starting* procedure noted above.

LowTemp/LowBattery AutoStart

Your system can be set to automatically start the engine if:

- The temperature drops below a certain level and/or
- The vehicle battery voltage drops below a certain level

If the LowTemp AutoStart feature has been programmed on and remotely activated by pressing the master remote control LevelShift button twice, then button 3 or by pressing button ★★ on the companion remote, the system will automatically start and idle the engine when the interior temperature drops to -15°C or lower. If the LowBattery AutoStart feature has been programmed on and remotely activated as noted in the system's complete owner's manual, the system will automatically start and idle the engine if the voltage drops below 12.2 volts to recharge the battery. With the optional CliffNet Wizard software and DataPort Replicator Cable, you may set the temperature and/or voltage thresholds you prefer.

Manual transmission SafeStart

PLEASE NOTE: This section is only for vehicles with a manual transmission. If your vehicle has an automatic transmission, skip this section.

For safety reasons, the transmission must be left in neutral if the engine will be remotely started. To assure safe remote starting, you must perform these steps **before** exiting:

1. Park and, while the engine is running, place the transmission in neutral and set the handbrake.
2. Without touching the brake, transmit channel 11 (LevelShift button twice, then button 3) on the master remote or press button ★★ on the companion remote. Two parking light flashes will confirm this action.
3. Turn the ignition off and remove your keys. The engine will *continue* to idle.
4. Exit and arm. The engine will shut down. This prepares the system to later accept your remote starting command.

NOTE: For safety reasons, the system ignores the remote start command if the alarm sounded while you were away.

Extended Accessory Power

The system will continue to power your car stereo, power windows and other accessories even after you shut off the engine (may require optional parts/wiring). So if you turn off the key and realize you forgot to roll up a window, you don't need to turn the ignition back on. Extended Accessory Power lasts 5 minutes or until a door is opened.

On a limited number of vehicles, this feature can cause operational problem. If this is the case, this feature can be programmed off via the *User-selectable features* programming.

User-selectable features

You may set many of the features to your own preferences. Once you've changed a few settings, you'll find that programming the system is so easy that you can even do it while driving. The system comes with all of its features preprogrammed as noted by the bold type in the *Table of user-selectable features*. To change any of the settings, use the steps noted below. To restore the feature to its factory setting, just repeat the procedure.

NOTE: For greater programming ease and even more system control, consider the CliffNet Wizard Windows PC software interface: www.clifford.com/wizard.

How to change a user-selectable feature:

Briefly, here's how it will work:

- **You will pick a feature from the following Table of User-Selectable Features, noting the feature's column and row numbers.**
- **You'll enter program mode by entering your valet code and pressing the ★ button of the dash- or console-mounted PlainView 2 switch until you hear a chirp.**
- **Press the blank PlainView 2 switch button the same number of times as the column number, then the ★ button a number of times equal to the row number.**

Step-by-step programming instructions

1. Refer to the *Table of user-selectable features* and make note of the column (across) number and the row (down) number of the feature(s) you wish to program.
2. Turn the ignition on, or start the engine (skip this step if the engine is running).
3. Enter your valet code, then press and hold the ★ button of the PlainView 2 switch for about 4 seconds until you hear a siren chirp.
4. *Select the feature column:* Press and release the blank button of the PlainView 2 switch the same number of times as the column number you wish. Pause. You will hear the same number of chirps as the column number, audibly confirming your selection.
5. *Select the feature row:* Press and release the ★ button the same number of times as the row number. You'll will hear a chirp each time you press to help you count.

NOTE: You have 5 seconds to enter the row number after selecting the column number. If you wait too long, the system jumps back to the "Feature Select" position (this is indicated with 3 chirps). If you wait another 60 seconds, the system will exit program mode.

6. **Pause.** You will hear either one or two chirps: **Two chirps = ON, one chirp = OFF** (If there is a *NOTE* for the selected feature, perform the actions noted).

NOTE: Some features, such as AutoStart (column 2, row 4), have multiple settings. Simply reselect the feature additional times to progress through each possible setting.

7. You may now select another feature or exit program mode:
 - a. To select another feature in that same column, repeat step 5 within the next 5 seconds (after 5 seconds, 3 chirps mean you are back to the "Feature Select" position).
 - b. To select a different feature column, go to step 4.
 - c. To exit program mode, turn the ignition off (you'll hear 3 chirps and the LED will turn off). If driving, just wait 60 seconds and the system will automatically exit program mode.

If you make an error, just turn off the ignition and start again.

EXAMPLE: Turn on Lock upon AutoArming and turn off Remote Valet Mode and FACT:

In this example, we'll change three different features in just one programming session: We'll turn on the Lock upon AutoArming feature, turn off remote controlled valet mode and turn off the FACT anti-falsing feature:

1. **Enter program mode** as previously noted (ignition on, enter your valet code, press and hold the ★ button on the PlainView 2 switch until you hear a chirp).
2. Since the *Lock upon AutoArming* feature is in column 3, row 2 of the Table, go to column 3 by pressing the blank button on the PlainView 2 switch three times. Wait for the 3-chirp/column 3 confirmation. Then press the ★ button twice (you'll hear a chirp each time you press the ★ button). After a brief pause, you'll hear 2 chirps to confirm that *Lock upon AutoArming* is now on.
3. Since *FACT* is also in column 3, there is no need to reselect column 3. Therefore, you can go straight to the row selection. Select row 4 by pressing the ★ button four times. After a brief pause, you'll hear one chirp to confirm that *FACT* is now off.
4. You'll note that the *Remote valet mode* feature is at column 2, row 3. To change to column 2, press the blank button twice, then wait for the 2-chirp/column 2 confirmation. Press the ★ button three times to select row 3. After a brief pause, you'll hear one chirp to confirm that the *Remote valet mode* feature is now turned off.
5. To exit the program mode, turn the **ignition off**. You'll hear 3 chirps to confirm program mode exit.

Reset All Features

If you wish to reset all the user-selectable features to their normal factory presets, you can do so simply by choosing the *Reset all features* selection (column 1, row 7) on the *Table of User-Selectable Features*. If you do so, all features — except the programmed remote controls and your valet code — will be reset to the factory settings that are indicated in BOLD type on the *Table of User-Selectable Features*. To reset all remote controls, use the *Clear all remotes* feature in column 2, row 6. To reset your valet code, use the *Set a new secret valet code* feature in column 2, row 7.

Table of User-Selectable Features

Feature Select	1 blank press	2 blank presses	3 blank presses	4 blank presses
1 ★ press	Add a new <i>master</i> remote control NOTE 1	Chirps: off/on (1/2 chirps)	AutoArming: off/on	NOTE 4 — Other vehicle's remote: arm/disarm (1 then 2 chirps)
2 ★ presses	NOT USED	Headlight Reminder off/on	Lock upon AutoArming: off/on	NOTE 5 — Other vehicle's remote: trunk release* (2 chirps)
3 ★ presses	NOT USED	Remote valet mode: off/on	AutoArming entry delay: off/on	NOTE 5 — Other vehicle's remote: silent arm and disarm (3 chirps)
4 ★ presses	Siren duration: 30/60/90sec. (1/2/3 chirps)	AutoStart: both off /both on/temp only/battery only (1/2/3/4 chirps)	FACT: off/on	NOTE 5 — Other vehicle's remote: SafeStart/AutoStart enable (4 chirps)
5 ★ presses	AutoLock: off/on	BlackJax anti-carjacking: off/on	Extended Accessory Power: off/on	NOTE 5 — Other vehicle's remote: remote engine starting (5 chirps)
6 ★ presses	AutoUnLock: off/on	Clear all remotes NOTE 2	NOT USED	NOTE 5 — Other vehicle's remote: window rolldown/venting* (6 chirps)
7 ★ presses	Reset all features (except remotes and valet code) to factory settings	Set a new secret valet code NOTE 3	NOT USED	NOTE 5 — Other vehicle's remote: remote valet mode (7 chirps)

** Requires optional wiring or accessory; ask your Clifford Dealer for details.*

NOTE 1: Press button 1 of the new MASTER 5-button remote control. You will hear one chirp. Immediately press button 1 again. You will hear two chirps to confirm that the new remote control has been added. To add a new COMPANION remote control, use the features in column 4 to individually assign each button.

NOTE 2: You'll hear two chirps to indicate all remotes have been cleared from memory. You must now add new/existing remotes with the "Add new remote control" feature and/or the "Other vehicle's remote" feature.

NOTE 3: Immediately PRESS THE BLANK BUTTON, THEN enter your new code, wait for the two chirps, then turn off the ignition (you'll hear 3 chirps to confirm program mode exit). You MUST now turn the ignition back on and then re-enter your new code. If the LED flashes on, your new code has been accepted. If the LED does not light, the two codes did not match and the system has reverted to your previous code.

NOTE 4: Lets you arm/disarm with the remote control of a G4 system on your other vehicle(s). For instance, to set the  button of the other car's remote to arm and disarm this system, select column 4, row 1, then press the  button of the other car's remote (you'll hear one chirp). Immediately press the  button again (you will hear a 2-chirp confirmation). The  button of the other vehicle's remote will now arm/disarm this system.

NOTE 5: The features in this column allow you to control your system with the remote control of a G4 system on your other vehicle(s). Just select the function you wish, then press the unused button or button combination on the other remote that you want to use to perform that function on this system (you will then hear a the chirps noted). **NOTE:** You must first set a button or button combination on the other car's remote that will arm/disarm the system (column 4, row 1) before these others will be accepted.

Lifetime limited factory warranty terms & conditions

Clifford vehicle security systems and accessories require professional installation by an Authorized Clifford Dealer. Unless the system is sold and installed by an Authorized Clifford Dealer, all product warranties and guarantees are void. As the manufacturer, Clifford Electronics warrants to the original consumer purchaser, the system control unit and remote controls to be free from defects in material and workmanship for as long as you own the vehicle in which the system was originally installed. All other parts of the system and accessories to the system are warranted to be free from defects in material and workmanship for one (1) year from the date of purchase. Clifford Electronics will repair or replace, at its option and free of charge during the warranty period, any system component that proves defective in material or workmanship under normal installation, use, and service, provided the product is returned to our factory by an Authorized Clifford Dealer, transportation charges prepaid. Products returned to our factory must be accompanied by a photocopy of the purchase receipt. In the absence of such purchase receipt, the warranty period shall be one (1) year from the date of manufacture. Any damage to the product(s) as a result of misuse, abuse, neglect, accident, incorrect wiring, improper installation, destruction or alteration of the serial number, repair or alteration outside our factory, or any use violative of instructions furnished by us will void the warranty. This warranty is limited to defective parts and specifically excludes any incidental or consequential damages connected therewith. This warranty is not transferable. Clifford Electronics makes no warranty against theft. This warranty is not to be construed as an insurance policy against loss. Warranty on installation labor, removal and reinstallation charges are not the responsibility of Clifford Electronics, Inc.