

CLIFFORD

World-Class Auto Security™

ACE

100

**Owner's
Manual**

Standard Features of the ACE 100

- ☑ ***Lifetime Warranty*** — For as long as you own the vehicle, Clifford will repair or replace the control unit and remote controls free of charge (see warranty card for full details).
- ☑ ***FACT™—False Alarm Control and Test*** — One of many patented Clifford innovations, FACT ***absolutely, positively ends recurring false alarms.***
- ☑ ***A Pair of 2-Button/3-Channel Remote Controls*** — Fingertip command from a typical range of 100 feet.
- ☑ ***AntiScan™***—Blocks the digital code scanners still used by some thieves.
- ☑ ***Remote Door Lock/Unlock Outputs*** — *No more fumbling with keys in the dark or bad weather!* A press of a button on the remote simultaneously arms ACE 100 and locks your car's power locks. Another press disarms and unlocks. (Some vehicles require optional relays.)
- ☑ ***Built-In Parking Light Flasher*** — Visually confirms door lock and system status.
- ☑ ***Remote Controlled Chirp Muting***— *Silently* arm or disarm the system whenever you wish by pressing both buttons on the remote control.
- ☑ ***User-Selectable AutoArming™***— Automatically arms itself “*passively*” if you forget. May qualify you for an insurance discount that could pay for the system (consult your insurance company).
 - ***AutoArming Enable/Disable*** — You may disable or re-enable AutoArming with just a few flicks of a switch.
 - ***AutoArm & Lock™*** — You may set the system to automatically lock the doors every time the system AutoArms.
- ☑ ***All Electronic Piezo Sensor***— An all-electronic vibration/impact sensor that delivers the utmost reliability and provides more accurate discrimination between genuine intrusion attempts and non-threatening conditions (like a large truck passing by) that cause other sensors to false alarm.
- ☑ ***Patented AutoTesting™***—Automatically tests all system triggers and sensors every time you remotely arm and warns you if you accidentally arm your ACE 100 system with the hood or trunk open.

Standard Features of the ACE 100 (cont.)

- ☑ ***High-Output Siren*** — Loud siren wail for 30 seconds when the alarm detects an intrusion attempt. The system then automatically resets and rearms.
- ☑ ***Patented Malfunction AutoBypass™*** — In the unlikely event of a trigger or sensor malfunction, your ACE 100 will automatically bypass the malfunction and arm all other points to continue relentless protection of your vehicle.
- ☑ ***Patented Prior Intrusion Attempt Alert*** — When you return to your vehicle and remotely disarm your ACE 100, a special chirp and parking light flash sequence will audibly and visually alert you from a distance if an intrusion attempt was foiled while you were away.
- ☑ ***Patented Remote Control Code Learning*** — Just a few flicks of a switch lets you match to the system up to 4 different 2-button/3-channel Clifford remote controls. Just as easily, a lost or stolen remote control can be deleted.
- ☑ ***Advanced CMOS Microcomputer*** — Very large scale integration (VLSI) microprocessor commands and monitors all system functions more than 1,000,000 times per second, yet it draws less power than the vehicle's clock, so it won't deplete your car battery like other alarms.
- ☑ ***Fault-Proof Starter Interrupt*** — The system will electronically prevent an intruder from starting the engine while the system is armed.
- ☑ ***Hood/Trunk Trigger Input*** — For full perimeter protection of the engine compartment and trunk contents (may require optional pin switches).
- ☑ ***High-Luminescence LED Status Indicator*** — Adds visual deterrence and identifies system status.
- ☑ ***Full-Time Remote Panic*** — If you feel threatened, you can remotely activate the siren and flash the parking lights with just a press on your remote control.
- ☑ ***Valet Mode*** — Permits vehicle servicing and valet parking without relinquishing the remote control.
- ☑ ***Patented SmartPowerUp™ II*** — When power to the system is disconnected, the system's non-volatile memory always remembers the last state (armed, disarmed or valet mode) and returns to that 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 immobilizing the vehicle.

Your 2-button/3-channel remote controls

The 2-button/3-channel remote controls are miniature radio transmitters powered by a 12-volt batteries. Range is up to 100 feet (a weak remote control battery will reduce range). The remote control is the key to your system. You will use it to arm and disarm the system, lock* and unlock* the doors, activate the panic feature, command options such as a remote trunk release, power window operation, or other accessory.

TO ARM THE SYSTEM	Press button I once. You will hear two chirps and the parking lights will flash twice. The dashboard LED will flash repeatedly and the car doors will automatically lock.*
TO DISARM THE SYSTEM	Press button I again. One chirp and one parking light flash confirm disarming, and the doors will automatically unlock.*
TO SILENTLY ARM OR DISARM. . .	Press both buttons I+II. The system will arm or disarm with all the indications noted above except the chirp confirmations.
TO ACTIVATE THE PANIC FEATURE	Press button I (channel 1) for 3 seconds. The parking lights will flash repeatedly and the siren will blare for 30 seconds or until you press button I again to turn it off.
TO REMOTELY CONTROL AN OPTION	Button II (channel 2) can optionally pop the trunk or activate another optional accessory.

AutoArming™

If this feature is enabled and you forget to remotely arm, ACE 100 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 will restart from the beginning once all doors are closed. ACE 100 has these additional AutoArming features:

- **AutoArming enable/disable:** If you prefer, you may deactivate or reactivate the AutoArming feature. See *User-selectable features* on page 6.
- **AutoArm & Lock:** 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* on page 6.

** Some vehicles require optional relays to control the vehicle's power locks.*

Valet mode

Whenever the system is put in valet mode, all of the system's security features are switched off. At various times, you will need to turn the system off. For instance, when having your car serviced, washed or parked by a valet.

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

To enable valet mode

1. Turn the ignition switch to its "ON" position or start the engine.
2. Flip the valet switch. The system's LED will glow continually for on-going visual confirmation of valet mode.

To exit valet mode

1. Turn the ignition switch to its "ON" position or start the engine.
2. Flip the valet switch. The system's LED will turn off to confirm that the system is in its normal operating mode.

How to interpret the chirps and parking light flashes

When you use the remote control, the system responds with chirps and parking light flashes. ***These chirp/flash acknowledgments mean:***

Chirps/flashes	Meaning
1	Your system is disarmed
2	Your system is armed
2 and then 4	Armed but a door is open or the sensor is malfunctioning (see <i>AutoTesting</i> below)
3	Disarmed but there was an intrusion attempt (see <i>Prior intrusion attempt alert</i> on page 5)
4	Armed but the hood or trunk is ajar (see <i>AutoTesting</i> below)

Piezo Sensor

The Piezo Sensor that detects intrusion-related vibrations and impacts.

AutoTesting™

Each time you remotely arm your ACE 100, it automatically performs an extensive test of all system triggers and sensors. If the ***hood or trunk*** is open when you remotely arm, the system will ***immediately*** alert you of the problem by sounding ***4 chirps*** and ***4 parking light flashes*** instead of the usual 2 and 2 (simply disarm, shut the hood or trunk and re-arm to reactivate monitoring of that trigger point). If a ***door*** is ajar or if a sensor is malfunctioning, you will receive the usual 2 chirps and 2 flashes, then, ***5 seconds later***, there will be ***4 chirps*** and ***4 flashes***. (The door ajar warning will not work on vehicles that have factory-delayed courtesy lights).

Automatic malfunction bypass

The system automatically bypasses any faulty point and arms all *other* triggers and sensors to provide the utmost protection until you can have the system serviced.

Prior intrusion attempt alert

If you hear three chirps when you remotely disarm, the alarm sounded in your absence.

FACT™— False Alarm Control and Test

With FACT, you'll never experience repeated false alarms. If the siren goes off, DO NOT remotely disarm the system; allow it to run for the full 30 seconds. Before sounding a second time, the system checks for another activated trigger to verify an intrusion is in progress. If the siren sounds again, you will know for sure that someone is tampering with your vehicle.

Dual-level tamper warning

You may set the system to issue a rapid five-chirp warning, instead of the full alarm, whenever the system detects tampering. If there is any further tampering, or if a door, the hood or the trunk is opened at *any* time, your system will sound the full alarm.

Fault-Proof starter interrupt

Your ACE 100 will automatically prevent the engine from being started while the system is armed. Clifford's Fault-Proof design ensures that *you* can start the engine even in the unlikely event of a system malfunction.

High-output siren

Loud siren wail when the system detects an intrusion. Your ACE 100 also has remote controlled chirp muting that is valuable when parking late at night in a quiet residential area or any time when you want to arm or disarm silently. To do so, simply press both buttons I+II on your remote control instead of the usual button I.

SmartPowerUp™ II

If power to the system is ever removed, SmartPowerUp II ensures the system will automatically restore 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 immobilizing the vehicle. 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 and no need to provide your mechanic with your remote control and instructions on how to use it.

User-selectable features

Your ACE 100 vehicle security system allows you to set many of its features to your own personal preferences. We have made the programming procedures very simple: to make a change, you just flick the valet switch a few times. The system comes from the factory with all of its features pre-programmed as noted in the table below. To change any of the settings, use the following procedure. To restore the feature to its factory setting, just repeat the procedure:

1. Select the feature you wish to program from the table below. Note the number of flicks and chirps.
2. Turn your vehicle's ignition switch to its "ON" position.
3. Immediately flick the valet switch back and forth, counting the number of chirps you hear. Stop when you reach the number of chirps associated with the feature you wish to program.
4. If noted, perform the "Secondary action."
5. Wait 3 seconds. You will hear 1-5 chirps (as noted in the "Program completion confirmation" column) and the LED will turn off. Turn the ignition off.
6. Repeat steps 1-5 for any other features you wish to program.

Feature	Factory setting	# of flicks & chirps	Secondary action	Program completion confirmation	Result
AutoArming	ON	4	—	1 chirp = OFF 2 chirps = ON	Change state from ON to OFF or vice-versa
AutoArm & Lock	OFF	5	—	1 chirp = OFF 2 chirps = ON	Change state from OFF to ON or vice-versa
Tamper Warning	OFF	11	—	1 chirp = OFF 2 chirps = ON	Change state from ON to OFF or vice-versa
FACT	ON	12	—	1 chirp = OFF 2 chirps = ON	Change state from ON to OFF or vice-versa
Add a new remote to channel 1 (arm/disarm)	—	13	Press remote control button I	1 chirp	Button I/channel 1 code of the new remote control has been memorized
Add a new remote to channel 2 (remote accessory)	—	14	Press remote control button II	2 chirps	Button II/channel 2 code of the new remote control has been memorized
Add a new remote to channel 3 (silent arm/disarm)	—	15	Simultaneously press remote control buttons I+II	3 chirps	Buttons I+II/channel 3 code of the new remote control has been memorized

Example: To change the AutoArming feature from "on" to "off," you would do the following:

- Turn the ignition key to the ON position.
- Flick the valet switch back and forth 4 times (you'll hear a chirp each time to help you count to the total of 4 chirps).
- Wait 3 seconds. The system will sound one more chirp to confirm that the AutoArming setting is now off (1 chirp = off, 2 chirps = on).
- Turn the ignition off. That's all there is to it! To change the

Adding new remote controls

For other drivers in your family, or if you wish to control Clifford systems on your other cars with the same remote control, you can buy additional Clifford remote controls from any Clifford Dealer (or call our Customer Service Department at 800-824-3208) and program them into the system yourself. Each ACE 100 will respond to as many as four remote controls. To add a new remote control to the system, use the procedures noted in the *User-selectable features* section on page 6.

How to erase the codes of lost or stolen remote controls

If one of your remote controls is ever lost or stolen, you can erase its digital codes from the system memory to make sure that the missing remote control can never be used to disarm your system. Just use the *Adding new remote controls* procedure noted above for a total of four times (e.g., if you have one remote control remaining, program it four times; if you have two remote controls, program each twice).

CLIFFORD

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ACE 100 is covered by

one or more of the following Clifford Electronics 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; 5,650,774 and other patents pending***