

CLIFFORD
The Science of Security™

**Prime
Level
FOUR
SECURITY
UPGRADE
PACKAGE**



Installation Manual



Color profile: Disabled
Composite Default screen



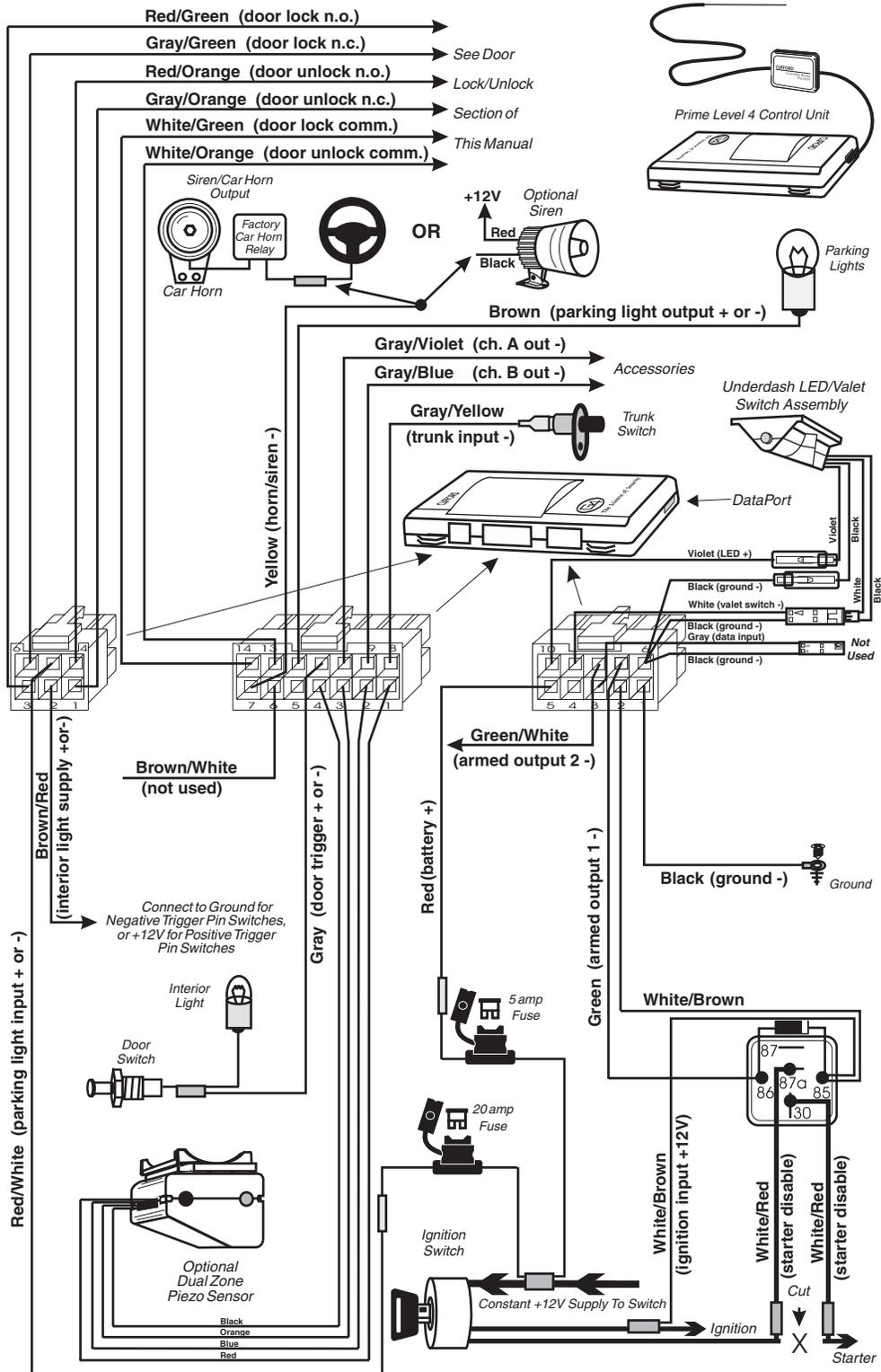
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NOTE: The Prime Level 1-5 products are designed for easy, plug-in upgrade. Thus the Level 1 harness is used in the Level 2 installation, the Level 1 and 2 harnesses are used in the Level 3 installation, and so on.



2

4

Important Information

1. Use a voltmeter. **DO NOT USE A TEST LIGHT!** Test lights have a current drain that will damage the vehicle's onboard computer or could trigger the air bag.
2. Keep extension, if needed, as short as possible. Use same-gauge wire for extensions.
3. **DO NOT** mount components nor route wires near hot or moving vehicle parts.

NOTE: Clifford Electronics' web site for Authorized Clifford Dealers has detailed descriptions of wire colors and locations for most foreign and domestic vehicles. See www.clifforddealers.com for assistance 24-hours per day or refer to the latest quarterly Tech Support Database CD-ROM.

Required Installation Tools

- Voltmeter (set to "DC Volt")
- Wire crimper
- Wire stripper
- Electric drill and bits
- Phillips screwdriver
- Crescent wrench
- Vinyl tubing
- Rubber grommet (if firewall pass-through is needed)

Modes: Dealer Mode, Sleep Mode, Customer Mode

There are three modes to provide the utmost flexibility for expediter and new vehicle dealers:

- **Dealer Mode:** This is the as-shipped operating mode after you program the master remote. The system respond only to the master remote in this mode. Beeps are muted, panic and car-finder features are off, and AutoArm and AutoArm & Lock features are on. Programming the Customer Care Kit remotes switches the system to Customer Mode and auto-deletes the master remote.
- **Sleep Mode:** This mode completely disables the system. It is intended for unsold pre-loads to make the system inoperable in cases where it is not feasible to remove the system control unit. To ensure against accidental customer access, Sleep Mode is accessible only if the system is in Dealer Mode.
- **Customer Mode:** This is the normal operating mode for the new car purchaser.

Control Unit and Receiver

Never install the control unit under the hood.

1. Select a mounting area, but do not affix the control unit until wiring and testing is complete.
2. Plug in the receiver module. Do not fold or make sharp bends in the cable or antenna wire. For maximum range, mount the receiver module away from the control unit and run the antenna up the window pillar and affix it to the windshield about an inch from the roofline.

Ignition & Starter

1. Find the wire in the steering column or ignition switch wireloom that shows +12V throughout **BOTH the cranking AND engine running cycles**, and 0 volts when the ignition is off.
2. Connect the WHITE/BROWN wire to the ignition line.
3. Find the wire that shows +12V during the **cranking cycle ONLY**.
4. Cut it and connect a WHITE/RED wire to each side of the cut wire.

LED & Valet Switch Assembly

1. Select an underdash area to mount the assembly where there is clearance for the screws and will position the LED so it is visible through the windows.
2. Mate the assembly's connector to the control unit connector of the same colors.

NOTE: The GRAY & BLACK wire 2-pin connector on the 10-pin connector is not used on the Level FOUR.

Door Trigger/Interior Light Supply

The Level FOUR has self-programming door trigger polarity. Door triggers on most vehicles are negative. To verify polarity:

1. Find the one wire off the rear of the door switch that shows +12 volts when the switch is pressed in and 0 volts when released. This is a negative trigger door wire.
2. If you can't find such a wire, find the one wire that shows 0 volts when the switch is pressed in and +12 volts when released. This is a positive trigger door wire.
3. Connect the system's thin GRAY wire to the door wire.
4. If the door trigger is negative, connect the BROWN/RED wire to ground wire; if positive, connect it to +12V.

NOTE: The BROWN/WHITE Level TWO harness wire is not used on the Level FOUR installation.

Door Locks

WARNING: If the power door locks do not operate properly when the system is armed and disarmed, DO NOT USE THE VEHICLE'S DOOR LOCK SWITCH! Permanent damage to the control unit or to the car's electrical system and lock servos will result. For assistance, call the Clifford Technical Support Hotline at 800-444-4667.

Single-Stage

(all doors unlock simultaneously)

1. Remove the door lock switch on the driver's side of the vehicle to reveal the switch wires.
 - a. If there are four or more wires, make the connections shown in Diagram 4.
 - b. If there are three wires, go to step 2.
 - c. If the vehicle does not have a door lock switch, find the wire in the driver's kick panel that shows ground when unlocked and "open" when locked. Make the connections shown in Diagram 3.
2. Find the wire that shows +12V while activating the switch. Make the connections shown in Diagram 1. Otherwise, go to step 3.
3. Repeat step 2 with the negative voltmeter lead connected to +12V. Then find the wire that shows +12V while activating the switch. Make the connections shown in Diagram 2.
4. Locks controlled from the driver's door key require installation of a #60-516 servo in the driver's door. Vehicles without factory power locks require a servo in each door. Mount the servo(s) and make the connections shown in Diagram 5.
5. On compressor type Mercedes Benz or Audi, make the connections shown in Diagram 6.
6. If needed, after power-up, program the system for 3-second pulsing or double lock and/or unlock pulses (+ or -).

Diagram 1: Positive Trigger

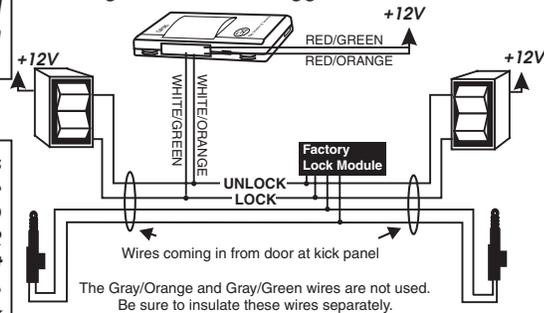


Diagram 2: Negative Trigger

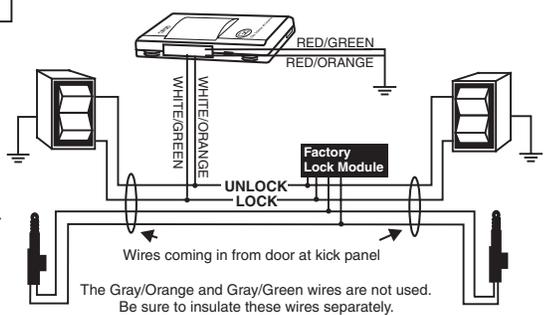
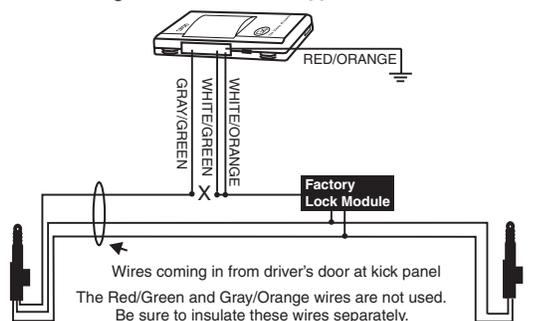


Diagram 3: One-Wire Type



2-Stage (only driver's door unlocks upon first press; all doors upon second press)

1. Find the driver's-door lock motor wire in the door or kick panel that shows +12V when the doors are unlocked.
2. Cut the wire and activate the switch. All doors *except* the driver's door should unlock.
3. Connect the WHITE/ORANGE wire to the motor side of the cut wire and the GRAY/ORANGE wire to the switch side.
4. Connect the RED/ORANGE wire to +12V.
5. Use the negative-pulsing GRAY/VIOLET Auxiliary A output to unlock the other doors (add a relay for lock types that are not negative-switching).
6. After power-up, set the Auxiliary A output to 2-Stage Unlock (column 3, row 3 in installer programming grid).

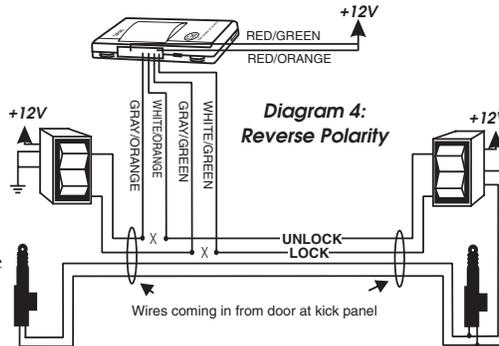


Diagram 5: Adding Servos

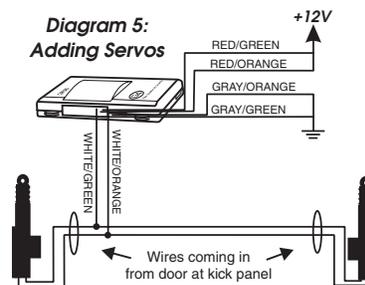
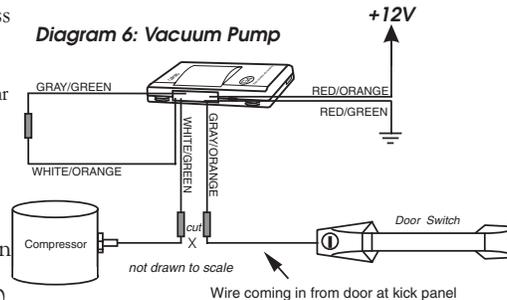


Diagram 6: Vacuum Pump



Parking Lights

1. Turn on the parking lights and access the parking light wire:
 - Near the headlight switch
 - In the door sill harness going to the rear lights
 - At any of the four parking light bulbs
2. If working underdash, turn the dashlight dimmer to its lowest setting.
3. Find the wire that shows +12V when the parking lights are on and 0 volts when off or, on most Japanese cars, 0 volts when on and +12V at rest.
4. Connect the BROWN wire to the parking light wire.
5. Connect the RED/WHITE and preconnected fuseholder to either:
 - a. +12V if the wire showed +12V in step 3 with the lights on.
 - b. Ground if the wire showed 0V in step 3 with the lights on.

Horn Connection

NOTE: If connecting a siren, refer to the Optional Siren section that follows.

1. Locate the wire that shows ground or +12V only when the horn is activated.
 - a. If ground, connect the YELLOW wire to the negative-switching car horn wire.
 - b. If +12V, use a relay to invert polarity.

Optional Dual-Zone Piezo Vibration/Impact Sensor

Mount the sensor in the passenger compartment, not in the engine compartment.

1. Firmly mount the sensor near the base of the steering column (if the steering column has a rotating sleeve, firmly screw the sensor to the interior firewall, kick panel or trunk wall).
2. Mate the sensor to the connector with the ORANGE, BLUE, BLACK and RED wires.
3. After power-up, adjust sensitivity as noted in the instructions that come with the sensor.

Optional Trunk Trigger Connection

The switch may be located in or near the trunk latch or at the trunk light. Otherwise you may install a pin switch in a location away from water channels.

1. Connect the GRAY/YELLOW wire to the negative-switching trunk pin switch.

Auxiliary A Output

The Auxiliary A output (GRAY/VIOLET wire) is activated by pressing the * or Opt button on the remote control. This output is preprogrammed to operate only when the system is disarmed (e.g., for use as a remote trunk release). It can also be used as the secondary unlock line if wiring the door locks for 2-stage unlocking (see the previous *Door Locks* section).

The factory setting is pulsed output (1 second ground). Interlock is on (operates only if the system is disarmed and the ignition is off). Current is limited to 0.15 amp.

After power-up, see *Installer-Programmable Features* on page 10 to change the type of output and/or turn the trunk interlock off or on.

Auxiliary B Output & Selectable AutoActivation

The Auxiliary B output (GRAY/BLUE wire) is activated by pressing the *+ button combination (or Opt+ LOCK button combination) on the remote control. This output can be programmed as either pulsed, latched or timed, and can also be programmed to operate only when the system is disarmed (e.g., for use as a remote trunk release).

The factory setting is pulsed output (1 second ground). Interlock is off (operates regardless of system or ignition state). Current is limited to 0.15 amp.

You can also set this output to automatically activate every time the system is remotely armed (perfect for vehicles with a window/sunroof all-close feature; see below). After power-up, see *Installer-Programmable Features* on page 10 to change the type of output, set AutoActivation and/or turn the interlock on or off.

European Vehicle Window/Sunroof All-Close

If turning and holding the door key closes the power windows/sunroof (a common feature on European vehicles), you can make them close upon automatically remote arming:

1. Find the wire that shows +12V or ground when the key is held to lock in the door cylinder.
2. Tap a wire in to this wire and connect to terminal 30 of a relay.
3. If the wire shows ground when the key is turned, connect terminal 87 to ground; if +12V, connect terminal 87 to 12V.
4. Connect the GRAY/BLUE wire to terminal 85.
5. Connect terminal 86 to +12V.
6. Set the Auxiliary B output to use the timer and to AutoActivate.
7. Set the Accessory Output Timer to 2 seconds longer than the total time it takes to close all windows/sunroof.

Remote Timed Headlight Activation/Automatic Post-Parking Illumination

You can make the following connections to provide remote timed headlight activation and/or automatic timed post-parking illumination upon remote arming. Simply follow the steps above using the wire that shows +12V or ground when the headlight switch is activated. If you set the output to AutoActivate, the headlights will turn on and stay on for the programmed duration every time the vehicle is armed.

Optional Engine Compartment Connections

Optional Siren

Mount the siren in the engine compartment away from hot or moving parts and where it cannot be reached from under the vehicle. Point downward to avoid water collection.

1. Firmly secure the siren to the engine bay firewall or a fender well.
2. Connect the YELLOW wire to the siren's BLACK ground input.
3. Connect the siren's RED wire to the system's 5-amp pre-fused RED wire or directly to the vehicle battery positive terminal via a separate 5-amp fuse.
4. After power-up, program the horn/siren output for siren (factory setting is for horn).

Final Wiring Connections

1. Attach the fuseholder of the RED wire to a constant +12V supply.
2. Connect the BLACK wire to a grounding bolt (clean to ensure a solid ground).
3. Insert the 5-amp fuse into the RED wire's fuseholder.
4. Insert the 20-amp fuse into the RED/WHITE wire's fuseholder.

NOTE: Power and test accessories after the basic system has been tested. Individually fuse all accessory power and fuse panel connections.

MANDATORY MASTER REMOTE CONTROL ADDITION

After power-up, you **MUST** program the system to respond to the Master Remote Control used by that dealership. To do so, get one of the master remotes used at that dealership (all master remotes at a dealership are the same code) and do the following:

1. Turn the **ignition on**.
2. Toggle the valet switch (located behind the LED assembly) in the following manner:
 - a. **Left, left, right**, then press and **hold to the left**.
 - b. After 3 seconds of holding to the left, you'll hear a horn **beep**.
 - c. **Right** once, then **wait 2 seconds** for the horn **beep**.
 - d. **Left** once (one **beep**), then press the **LOCK** button on the master remote (**two beeps**).
3. Turn the **ignition off** (3 beeps).

Eight-Event TotalRecall

1. With the ignition OFF, hold the valet switch (at the rear of the LED assembly) to the right.
2. Use the remote control to lock, then unlock, then release the valet switch.
3. The LED will flash 2–10 times, pause, then flash 2–10 times, etc.
4. Refer to the following chart. The first set of flashes was the most recently activated trigger or sensor. The next is the second most recent, and so on up to as many as the last eight.

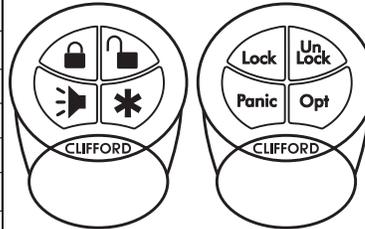
LED flashes	Trigger/sensor indication
2 flashes	Optional Sensor
4 flashes	Door trigger
5 flashes	Trunk trigger
6 flashes	Hood trigger (if IntelliStart 4 is installed)
7 flashes	An attempt was made to turn on the ignition while the system was armed

Delayed Courtesy Lights

Delayed or dimming courtesy lights interfere with remote arming. If the delay is more than 5 seconds, turn on the *Delayed Courtesy Lights* feature noted on page 10.

Remote Control Operation

REMOTE FUNCTIONS		
Function	Icon remote	Word remote
Arm & lock		Lock
Disarm & unlock		UnLock
Trunk release	*	Opt
Panic (repeated honks)	HOLD: 	HOLD: Panic
Locate (short beep)		Panic
Remote valet mode	* + 	Opt + UnLock
Option #2	* + 	Opt + Lock
Remote engine start	 + 	Lock + UnLock
AutoStart/SafeStart	 + 	Panic + Lock
Window open/vent	 + *	Panic + Opt



Programmable Features

The Level FOUR comes preprogrammed as noted in bold text in the following tables.

Using CliffNet Wizard PRO

The CliffNet Wizard PRO software provides an intuitive access to all installer and end-user features through a user-friendly, graphical user interface and provides extensive diagnostic capabilities. See www.clifforddealer.com to download a free copy of the program (a #60-509 cable set is required to connect your Windows PC or palmtop to the G4 DataPort).

Programming User-Selectable Features

- Note the column (across) and row (down) numbers of the feature(s) you wish to program.
- Turn the ignition to the "ON" position or start the engine.
- Enter the factory preset valet/programming code of "2" by toggling the valet switch (located behind the LED assembly) to the left two times, then to the right (LED on).
- Immediately hold to the left for about 3 seconds until you hear one horn beep and the LED turns on to confirm the system is in the "Feature Select" position.
- Select the feature column: Toggle the switch to the right the number of times indicated for the column. Pause. You will hear the same number of horn beeps, confirming your selection.
- Within five seconds, select the feature row: Toggle the switch to the left the number of times indicated for the row. You'll hear a beep each time to help you count.
- If there is a NOTE for the selected feature, perform the actions noted.
- Pause. You will hear either one or two beeps: two beeps = ON, one beep = OFF.
- You can select another feature, or you can exit program mode:
 - To select another feature in that same column, repeat step 6 within the next five seconds (after five seconds, three beeps indicate return to the "Feature Select" position).
 - To select a different feature column, repeat step 5.
 - To exit program mode, turn the ignition off (you'll hear three beeps and the LED will turn off), or wait 60 seconds for the system to automatically exit program mode.

User-Selectable Features (Customer Mode): 1 beep = OFF, 2 beeps = ON				
Feature Select	Right x 1	Right x 2	Right x 3	Right x 4
Left x 1	Add a new remote NOTE 1	Chirps*/beeps: off**/on/quiet (1/2/3 chirps*/beeps)	AutoArming: off/on**	NOTE 5 — Other remote: arm (1 then 2 beeps)
Left x 2	Personalized Siren Sounds* NOTE 2	NOT USED	Lock upon AutoArming: off/on**	NOTE 6 — Other remote: trunk release (2 beeps)
Left x 3	Play Siren Sounds*: trigger only/always (1/2 beeps)	NOT USED	AutoArming entry delay: off/on	NOTE 6 — Other remote: panic (3 beeps)
Left x 4	Siren duration: 30/60/90sec. (1/2/3 beeps)	AutoStart*: both off/both on/temp only/battery only (1/2/3/4 beeps)	FACT: off/on	NOTE 6 — Other remote: disarm (4 beeps)
Left x 5	AutoLock: off/on/rpm* (1/2/3 beeps)	NOT USED	NOT USED	NOTE 6 — Other remote: remote starting* (5 beeps)
Left x 6	AutoUnLock: off/on	Clear all remotes NOTE 3	NOT USED	NOTE 6 — Other remote: window rolldown/venting* (6 beeps)
Left x 7	Reset all features to default (except remotes & valet code)	Set a new secret valet code NOTE 4	NOT USED	NOTE 6 — Other remote: valet mode (7 beeps)

* Requires optional G4 accessory

** In Dealer Mode (see page 3), beeps/chirps are off; AutoArming and Lock upon AutoArm are on

- **NOTE 1:** Press the lock button of the new vehicle buyer's remote. You'll hear one beep. Press the lock button *again*. You'll hear two beeps to confirm that the new remote control has been added.
- **NOTE 2:** If equipped with the optional Self-Powered SmartSiren 4, selection of this feature will cause the system to sound a few seconds of siren sound #1. Toggle the valet switch to the right to turn on this sound or to the left to turn it off. The system will then sound a few seconds of sound #2. Repeat: right=ON, left=OFF for each of the six sounds.
- **NOTE 3:** Two beeps indicate all remotes have been cleared from memory. You must now add new/existing remotes with the "Add new remote" feature and/or the "Other remote" feature.
- **NOTE 4: Immediately toggle to the right**, then enter the new code, *wait for the two beeps*, then turn off the ignition (you'll hear 3 beeps to confirm program mode exit). You **MUST** now turn the ignition back on and then re-enter the new code. If the LED flashes on, the new code is set. If the LED does not light, the two codes did not match and the system has reverted to the previous code.
- **NOTE 5:** Permits arming with the remote of a G4 system on another vehicle. For example, to set the * button of the other car's remote to arm this system, select column 4, row 1, then press the * button of the other car's remote (you'll hear one beep). Immediately press the * button again (two beeps). The * button of the other remote will now arm this system. Then select row 4 of this same column to assign a different button to disarm.
- **NOTE 6:** The features in this column allow control of the system with the remote of a G4 system on another vehicle. Select the function, 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 beeps noted). **NOTE:** You must first set a button or button combination on the other car's remote that will arm the system (column 4, row 1) before these others will be accepted.

Installer-Programmable Features

1. Turn on the ignition.
2. Enter the factory preset valet/programming code of "2" by toggling the valet switch (located behind the LED assembly) to the left two times, then to the right.
3. Hold the switch to the left. You'll hear one beep after about 3 seconds to indicate user programming mode. **KEEP HOLDING** (about 12 more seconds) until you hear the 3-beep installer programming mode confirmation.
4. Select the feature column: Toggle the switch to the right the number of times indicated for the column. Pause. You will hear the same number of horn beeps, confirming your selection.
5. Within five seconds, select the feature row: Toggle the switch to the left the number of times indicated for the row. You'll hear a beep each time to help you count.
6. If there is a NOTE for the selected feature, perform the actions noted.
7. Pause. You will hear either one or two beeps: two beeps = ON, one beep = OFF.
8. You can select another feature, or you can exit program mode:
 - a. To select another feature in that same column, repeat step 5 within the next five seconds (after five seconds, three beeps indicate return to the "Feature Select" position).
 - b. To select a different feature column, repeat step 4.
 - c. To exit program mode, turn the ignition off (you'll hear three beeps and the LED will turn off), or wait 60 seconds for the system to automatically exit program mode.

Installer-Programmable Features: 1 beep = OFF, 2 beeps = ON

Feature Select	Right x 1	Right x 2	Right x 3
Left x 1	Single/Double Lock Pulse (1 beep/2 beeps)	Accessory Output Timer Duration (10sec.): 1-255 sec. NOTE B	Door Ajar Warning /Delayed Courtesy Lights (1 beep/2 beeps)
Left x 2	Single/Double Unlock Pulse (1 beep/2 beeps)	Accessory Output B type: (Pulsed/Timed/Latched) (1 beep/2 beeps/3 beeps)	Accessory Output A Trunk Interlock (On/Off)
Left x 3	Lock/Unlock Pulse: 1 second/3 second (1 beep/2 beeps)	NOT USED	Accessory Output A for 2-Stage Unlocking (pgs 5 & 10) (On/Off)
Left x 4	NOT USED	IntelliStart 4: Diesel/ Gas (1 beep/2 beeps)	Accessory Output B Trunk Interlock (On/Off)
Left x 5	IntelliStart 4: Program RPM NOTE A	Program Optional SmartWindows 4 NOTE C	AutoActivate Accessory Output B Upon Remote Arming (On/Off)
Left x 6	Car Horn/Optional Siren (1 beep/2 beeps)	Sleep Mode (only if in dealer mode, see page 3) (On/Off)	NOT USED

- **NOTE A:** Please note that the Diesel/Gas selection (column 2, row 4) must be made before programming RPM. To program RPM, the engine must be running at its normal idle speed when you select this feature. Two beeps and two parking light flashes confirm RPM programming, two beeps and one parking light flash indicates no tach signal, check the BLACK/GRAY wire connection.
- **NOTE B:** A chirp will indicate the timer has started. When the desired duration has been reached (1-255 seconds), tap the valet switch to the right (2 chirps).
- **NOTE C:** You will hear two beeps. Press and hold the driver's window switch in the up position for 2 seconds, then release. The windows will close and open repeatedly. Programming is complete when the windows vent. For a second SmartWindows 4 module, briefly tap the driver's window switch up to repeat the process for the rear windows.

System Checklist & Troubleshooting

The following checklist will assure that you have installed the Level FOUR correctly. Each successive step requires that the previous step has been completed as indicated.

NOTE: If you are still having trouble after performing the following steps, please call Clifford Technical Support Services at 1-800-444-4667.

Step 1: Test the immobilization circuit.

Arm the system by pressing the LOCK button on the Dealer Master remote (note: there are no arm/disarm beep confirmations in Dealer Mode [see page 3]) from inside the vehicle and wait 10 seconds. Turn the ignition to the "START" position.

- **Engine does not respond.** This is the correct response, proceed to step 2.
- **4 beeps:** If 4 beeps immediately or 5-10 seconds after arming, a trigger or sensor is open or active, or the vehicle has delayed courtesy lights and the Delayed Courtesy Lights feature has not been programmed on. Disarm and use the Eight-Event TotalRecall feature noted on page 7 to identify the open/active input. If the *door trigger* is indicated, activate the delayed courtesy lights feature.
- **Engine starts or cranks.** The starter or ignition connection is miswired. Retest the vehicle wires as noted in the *Starter Connection* section on page 3.
- Make sure the fuses are in the fuseholders and check the power and ground connections.
- Verify the control unit connectors are properly inserted into the control unit.
- Verify the ignition wire is connected to the true ignition line instead of a +12V line.

NOTE: If the 20-amp fuse blows upon arming:

- Disconnect the system's parking light wire, replace the 20-amp fuse and rearm. If the fuse does not blow, the parking light wire is shorting.
- If the fuse blows while the parking light wire is disconnected, the door locks are not wired correctly. Reconnect the vehicle's power locking system to its original condition, then retest the voltages as indicated in the *Door Locks* section.
- If engine still starts or cranks after retesting all the wiring, check the power and ground connections. Make sure fuses are in the fuseholders, verify the control unit connectors are securely fastened, verify the ignition input wire is connected to the true ignition line instead of a +12V or accessory line, and verify the transmitters are programmed.

Step 2: Test the horn connection.

Rapidly turn the ignition on then off (this invokes the AutoArming Bypass feature):

- **1 beep:** This is the correct response. Proceed to step 3.
- **No beeps:** Check horn connections.

Step 3: Test the parking lights.

Arm the system with the remote control.

- **Two flashes.** This is the correct response, proceed to step 4.
- **No flashes.** If no flashes, verify the parking light bulbs are operational. Verify that the RED/WHITE wire is connected to a constant +12V source and that the 20-amp fuse is not blown. If so, see the *Parking Lights* section.
- **Only one side flashes.** If only the left or the right side parking lights flash, the vehicle has dual circuits; call Technical Support at 1-800-444-4667.

Step 4: Test the door locks.

Arm the system by pressing the Lock button on the remote control.

- **Doors lock.** This is the correct response, proceed to step 5.
- **Doors do not lock.** You either selected the wrong lock diagram, programmed the wrong lock polarity or connected the wires incorrectly. Reconnect the vehicle's locking system to its original condition, then retest as indicated in the *Door Locks* section.

WARNING: If the doors do not lock, DO NOT activate the vehicle's lock switches. Doing so may damage the control unit, the vehicle's electrical system and/or the power lock servo motors.

- **Doors unlock.** You either selected the wrong door lock diagram or connected the wires incorrectly. Reconnect the vehicle's power locking system to its original condition, then retest the voltages as indicated in the *Door Locks* section and wire the locks as indicated.
- **Only one door locks.** You either selected the wrong door lock diagram or connected the wires incorrectly. Reconnect the vehicle's power locking system to its original condition, then retest the voltages as indicated in the *Door Locks* section.

Step 5: Test the valet switch.

Test switch operation by entering programming mode as noted on page 8. If no response:

- Verify the WHITE/BROWN wire has +12V when the ignition is ON and 0V when OFF. If not refer to *Ignition Connection* on page 3.
- Verify the WHITE wire rests at +5V, shows +3V when toggled to the left and 0V when held to the right. If not, test the switch's BLACK wire. It should read 0V at rest, 0V when pressed to the left and 0V when pressed to the right. If the BLACK wire tests incorrectly, check the ground circuit. If both wires test correctly, the valet code has been changed. Use CliffNet Wizard PRO to reset the PIN code.

Step 6: Test the LED.

Arm the system with the remote control.

- **Flashes repeatedly.** This is the correct response, proceed to step 7.
- **No flashes.** Verify that the LED's VIOLET and BLACK wires are properly connected. **Warning:** This is a 2-volt LED, testing with 12 volts will destroy the LED.

Step 7: Test the disarm function.

Disarm by pressing remote control button 1. The following should occur (note: there are no arm/disarm beep confirmations in Dealer Mode [see page 3]):

- **Parking lights flash once.** If the parking lights do not flash once, refer to step 3.
- **LED stops flashing.**
- **Doors unlock.** If not refer to step 4.
- **Immobilizer circuit immediately disengages** (test by starting the engine with the key). If the immobilizer circuit does not disengage, refer to step 1.
- **Interior courtesy light(s) turn on** and stay on for 30 seconds or until ignition on.
 - If the interior light(s) do not turn on, verify that you replaced the interior light fuse if removed or have turned the lights back on.
 - If the fuse blew when you disarmed, the vehicle uses a positive door trigger and you connected the interior light supply wire to ground instead of +12V.
 - Check the door trigger circuit.

Step 8: Test the door trigger circuit.

Rearm, then use the key to unlock and open the driver's door.

- **Horn sounds, parking lights flash repeatedly.** This is the correct response, proceed to step 9.
- **Horn does not sound immediately.** Make sure the door pin switches consistently show less than 1.5 volts if negative-switching or more than +11 volts if positive-switching.

Step 9: Test the optional trunk trigger circuit.

Arm the system, then use the key to unlock the trunk.

- **Horn sounds immediately, parking lights flash repeatedly.** This is the correct response, proceed to step 10.
- **Alarm does not sound immediately.** If the alarm does not sound immediately, make sure that the trunk pin switch is working properly and, when open, is consistently showing less than 1.5 volts. Also make sure the trunk pin switch is connected to the correct wire. If not, the trunk pin switch must be thoroughly cleaned or replaced.

Step 10: Test the optional Dual-Zone Piezo Sensor.

Arm, wait 10 seconds, then tap the car softly with your fist. The following should occur:

■ **Horn beeps five times.** This is the correct response.

Hit the car firmly with your fist. The following should occur:

■ **Alarm triggers.** Proceed to step 11.

If either of these test fail, adjust the sensor using the adjustment knob and retest. Keep in mind that the sensor does not come online until about 10 seconds after arming.

Step 11: Test range and optional accessories.

Testing range and optional accessories, such as trunk release or the IntelliStart 4 remote engine starting accessory, will require temporary addition of a Customer Care Kit remote control. When testing is complete, reprogram the master remote control into the system. This clears out the codes of any Customer Care Kit remote controls and returns the system to Dealer Mode.

To test range, stand 30 feet from the vehicle and use the remote control to arm and disarm.

- The system will respond as previously noted. If not:
 - Reposition the external receiver as high as possible under the dash and as far as possible from heavy wirelooms and metal.
 - Reposition the antenna rod underdash or, for maximum range, run the antenna cable up the window pillar and mount the antenna rod on the windshield about an inch below the roofline.
 - Make sure that the remote control battery measures at least 3 volts *while* transmitting.
 - Make sure the voltage at the control unit between the 5-amp fused power line and each the ground line is at least 12.0 volts when triggered (if less, make sure the ground connection is solid; if so, the vehicle battery may need charging, servicing or replacement).
 - Make sure no accessories are tapped in to the RED or BLACK power and ground wires.

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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

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