

## Standard Features of the Concept 40

- ☑ **Lifetime Warranty** — For as long as your customer owns the vehicle, Clifford Electronics 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 puts an end to recurring false alarms* (user-selectable).
- ☑ **A Pair of 4-Button/12-Channel Remote Controls** — Fingertip command from a typical range of 100 feet.
- ☑ **Anti-CodeGrabbing™ (ACG) with Random Code Encryption and AutoReSync** — A code-grabber allows a thief to record and capture off the air the digital code transmitted by a remote control when used to arm an alarm. When the vehicle owner leaves, the thief replays the remote control's captured code to disarm the alarm and unlock the doors. ACG with Random Code Encryption makes thieves' "code-grabbers" completely useless, because each time the owner presses the button on the remote control, a different random code is transmitted. The Concept 40 remote controls *never* transmit the same code twice. What's more, these new-generation ACG remote controls automatically resynchronize themselves with the control unit, so no resynchronizing procedure is ever required.
- ☑ **Full-Time Remote Panic with Automatic Door Locking and Unlocking** — A continuous press on remote control button 1 will sound the siren, flash the parking lights and unlock the doors of the owner's parked car for quick entry without fumbling with the keys. If the owner needs to panic the system while driving, the siren will sound, the lights will flash and the doors will lock to shield him or her from the assailant.
- ☑ **UltraSecure Coded Valet Mode™** — Ensures that no thief can turn off the Concept 40 like they can all other brands of alarms. User control is much easier since there is no need to "hide" the valet switch. Zero crimp connections allow you to easily mate the prewired connectors.
  - ☑ **Remote Controlled Valet Mode Entry and Exit** — With just a press of a button from up to 100 feet away, the customer can enter or exit valet mode, which is confirmed from a distance with parking light flashes.
- ☑ **Remotely Adjustable Digital Dual-Zone Proximity Sensor IV™** — You can adjust, test and set sensitivity of each zone of this efficient microprocessor-controlled passenger compartment sensor via the remote. This new-generation radar sensor uses only 50% of the power of other radar sensors, yet provides better sensitivity and far more precise discrimination. For ease of installation, it also has the smallest footprint of any radar sensor, so you can mount it where no other radar sensor can go. The two sensor zones provide full perimeter protection: If someone is lurking near the car, the system sounds a rapid 5-chirp warning, but if a thief leans into the passenger compartment, the system instantly blasts the siren. Zero crimp connections, just mate the prewired connectors.
  - ☑ **Audible Confirmation of Sensor Adjustments** — For the utmost in sensitivity adjustment ease and instant feedback, just press a button on the remote. *That's all there is to it!* Two chirps confirm each incremental increase, one chirp sounds for each decrease and three confirm minimum and maximum settings. It's so easy, the vehicle owner can even do it himself!
  - ☑ **32-Step Incremental Sensitivity** — For fine-tuning flexibility and accuracy, the Digital Dual-Zone Proximity Sensor IV's inner zone has a 32-step adjustment range. The less critical outer zone has 16 steps for adjustment speed and accuracy.
  - ☑ **Adjust and Test Unobtrusively** — No repeated arming and disarming, and no siren wailing. You set, adjust and test sensitivity without activating the alarm!
- ☑ **Remote Override of Each Sensor Zone** — One press of a button on the remote control will override the sensor's perimeter warning zone when the owner parks in an area with heavy pedestrian traffic. A second press turns off both zones for those times when the driver must leave a passenger or pet in the vehicle.
- ☑ **Remote Door Locking/Unlocking with Built-in Relays** — No external relays to wire and mount. The Concept 40 directly interfaces with all the most common types of power doorlocks, including the 3-second pulse type of older Mercedes Benz and Audi vehicles.
  - ☑ **User-Selectable AutoLock™** — Automatically locks the doors the instant the ignition is turned on.
  - ☑ **User-Selectable AutoUnLock** — Automatically unlocks the doors when the ignition is turned off.
  - ☑ **Deluxe Remote Keyless Entry in Valet Mode** — Use the remote control to lock and unlock the car doors, activate the headlights, accessories, etc. even while the system is in valet mode.

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## Standard Features of the Concept 40 (cont.)

- ✓ **Dual-Mode "Chirp" Silencing**— Both long-term and remote controlled chirp muting.
- ✓ **QuietChirp™**— User-selectable soft or full-volume arm/disarm chirps.
- ✓ **Built-In Parking Light Flasher with On-Board Relay**—No external relay to wire and mount. The parking lights confirm arming, disarming, AutoArming countdown, remote valet entry and exit, etc.
- ✓ **Remote Controlled Courtesy Lighting**—Again, no external relay. The system automatically turns on the courtesy lights when remotely disarmed (or remotely unlocked in valet mode) and keeps them on for 30 seconds or until the ignition is turned on, whichever occurs first.
- ✓ **Patented Smart AutoTesting™**—Automatically tests all triggers and sensors when remotely armed and specifically identifies any malfunction, eliminating time-consuming and costly trouble-shooting.
- ✓ **Patented Malfunction AutoBypass™ with Automatic Monitoring**—Automatically bypasses any trigger or sensor malfunction. If the owner simply left the hood, trunk or a door open when arming, he or she can just close it (the system temporarily ignores the sensor input for that moment) and the system will again monitor that trigger point.
- ✓ **Selectable Starter/Ignition Interrupt**— Concept 40 lets you use its prewired relay to interrupt your choice of the starter or the ignition. What's more, you can set the interrupt to either normally closed or normally open. The normally-closed, fault-proof mode allows the driver to start the engine even in the unlikely event of a system malfunction, while the normally open setting ensures the engine can't be started by a thief if he tampers with system power or even if he removes the control unit! (Prewired and preprogrammed as a normally closed starter interrupt.)
- ✓ **High-Output Insignia™ Siren**— Designed entirely by Clifford engineers, the Clifford Insignia Siren is far superior in performance, features, reliability and even aesthetics to all other manufacturer's look-alike, sound-alike generic sirens.
  - ✓ **Ultra-Reliability**— The Insignia Siren is designed to deliver 10 times the reliability of conventional sirens.
  - ✓ **User-Selectable Siren Duration**— 30 or 60 seconds.
  - ✓ **Patented Automatic Noise Abatement**— Automatically limits alarm sounding to five siren duration cycles even if a door is left open in the wake of an intrusion attempt, then automatically resets and re-arms.
- ✓ **Enhanced User-Selectable AutoArming™**— Arms itself "passively" if the owner forgets to arm it with the remote.
  - ✓ **AutoArming Enable/Disable**— The owner may disable or re-enable AutoArming with just a few flicks of a switch.
  - ✓ **AutoArm & Lock™**— The owner may set the system to automatically lock the doors every time the system AutoArms.
  - ✓ **Visual Indication**— Two parking lights flashes signal that the 30-second countdown to AutoArming has started.
  - ✓ **User-Selectable 15-Second Entry Delay**— Only upon passive arming, and only if the owner so chooses.
  - ✓ **Instant AutoArm Bypass**— Just a quick turn of the ignition switch bypasses AutoArming for one cycle — perfect when fueling the vehicle. AutoArming is automatically restored the next time the car is parked.
- ✓ **Eight-Event TotalRecall™**—The Concept 40's memory stores the identity of the last eight triggers and/or sensors activated. This provides an invaluable diagnostic means, since the system will visually identify the activated triggers and sensors in reverse chronological order.
- ✓ **Patented Smart Prior Intrusion Attempt Alert**— Specifically identifies the sensor or trigger tripped in an intrusion attempt.
- ✓ **On-Board Electronic Timer**— User-adjustable to any duration between one second and two minutes. Can be used for any timed accessory of other application that needs a variable timer.
- ✓ **Remote Window/Sunroof Closure Capability**— If the vehicle will close the power windows/sunroof via the driver's door key, the system's integrated timer and an optional relay can be used to automatically close the power windows and sunroof every time the owner remotely arms. A great feature at a next-to-nothing cost.
- ✓ **Remote Headlight Activation Capability**— Ten minutes and a relay is all it takes to provide this valuable addition to most vehicles. The vehicle owner can set the headlight duration to any interval between one-second and two minutes, and he can change it any time or place, or even while driving.

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## Standard Features of the Concept 40 (cont.)

- ☑ **User-Selectable Headlight Reminder** — Warns the driver if he forgets to turn off the headlights after parking — a real battery-saver on rainy or foggy days. If the vehicle already has this feature, it can be programmed off with a few flicks of a switch.
- ☑ **Smart Remote Trunk Release Capability** — An electronic interlock assures that the optional remote trunk release can be activated only when the system is disarmed. To further prevent any possibility of unintentional opening of the trunk, the interlock also makes sure that the trunk release cannot be remotely activated while driving.
- ☑ **Advanced CMOS Microcomputer** — Very large scale integration (VLSI) microprocessor commands 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 the car battery like other alarms.
- ☑ **Patented Remote Control Code Learning** — Just a few flicks of a switch lets you or the owner match to the system up to 4 different 12-channel Clifford remote controls. Just as easily, a lost or stolen remote control can be deleted from the system memory.
- ☑ **Multiple-Car Control** — The vehicle owner can interface the 12-channel remote control with Concept Series systems on up to seven of his or her other vehicles.
- ☑ **High-Luminescence LED Status Indicator with Automatic Battery-Saving Mode** — Adds visual deterrence and identifies system status. To conserve vehicle battery power (since the LED draws more current than the control unit), if the system has remained continuously armed for 48 hours, the flash rate will automatically slow to half the normal rate. If left continuously armed for 96 hours, the blink rate will slow to one-quarter the normal rate.
- ☑ **Channel 2 and Channel 4 with Selectable Output Type** — For remote control of multiple accessories. You can change the channel 4 output from its pulsed operation (factory preset) to your choice of latched or timed. Setting an output for latched operation, for instance, permits activation of the vehicle's audio system or neon undercarriage lighting. Timed outputs can control lights, power window/sunroof closure and hydraulics.
- ☑ **AutoActivation of Channel 4** — The perfect feature for installations in which you have the channel 4 output set to close the power windows. Every time the system is armed, channel 4 is activated (installer-selectable).
- ☑ **Installer-Selectable High/Low Circuitry** — If the vehicle has delayed courtesy lighting, you won't have to go through any special testing or connections. A few flicks of the PlainView switch sets the Concept 40 to adjust itself to read the door input when the interior light turns off.
- ☑ **Multiple Sensor/Trigger Inputs** — Separate inputs for two sensors as well as separate inputs for the doors, trunk and hood allow for precise trigger/sensor identification.
- ☑ **Prewired LED, Sensor and Valet Switch Connectors** — These prewired connectors eliminate up to ten different crimp connections to make installation easier and faster.
- ☑ **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.
- ☑ **Full-Time Programming Access** — The owner can easily change the status of nearly 20 different user-selectable features at any time, even while driving. Clear, audible signals confirm each feature selection and setting.

## Wiring Description for the 24-Pin Connector

Pin	Color	Connects to	Page
1	White/Black	Hood pin switch	8
2	Orange	Prewired to the sensor 2 connector	5
3	Gray/Yellow	Trunk pin switch	8
4	White/Blue	Prewired to the Proximity Sensor connector	7
5	White/Brown	Prewired to the starter/ignition interrupt relay	5
6	Violet	Prewired to the LED connector	7
7	Green	Prewired to the starter/ignition interrupt relay	5
8	Pink	Headlight relay or other channel 2 timed accessory (armed only)	7-8
9	Gray/Blue	Channel 4 accessory	8
10	Gray/Violet	Optional trunk release or other channel 2 accessory (disarmed only)	7
11	Brown	Parking lights	7
12	Red/White	Battery positive (20-amp fuse)	9
13	Yellow	Siren black wire	8
14	Black	Battery negative	9
15	Red	Battery positive (5-amp fuse)	9
16	White	Prewired to the PlainView switch connector	7
17	Gray	Door trigger (+ or -)	7
18	Brown/Red	Connect to ground for negative door trigger, +12V for positive door trigger	7
19	White/Green	Door lock common	7
20	White/Orange	Door unlock common	7
21	Gray/Orange	Door unlock normally closed	7
22	Red/Green	Door lock normally open	7
23	Gray/Green	Door lock normally closed	7
24	Red/Orange	Door unlock normally open	7

### Sequence of Installation

#### 1. Passenger Compartment

- a) Select a suitable location to mount the *control unit*.
- b) Wire the *Starter/Ignition Interrupt Relay*.
- c) Mount and connect the *LED* status indicator.
- d) Wire the *door trigger* and *interior light supply*.
- e) Wire the *door locks*.
- f) Mount and connect the *PlainView Valet Switch*.
- g) Mount and wire the *Dual-Zone Proximity Sensor IV*.
- h) Wire the *channel 2 and channel 4 outputs*.
- i) Wire the *trunk trigger* and, if needed, mount a pin switch.
- j) Wire the *parking lights*.
- k) Mount and wire optional passenger compartment *accessories*.

#### 2. Engine Compartment

- a) Mount and connect the *Insignia Siren* and, if needed, *hood pin switch*.

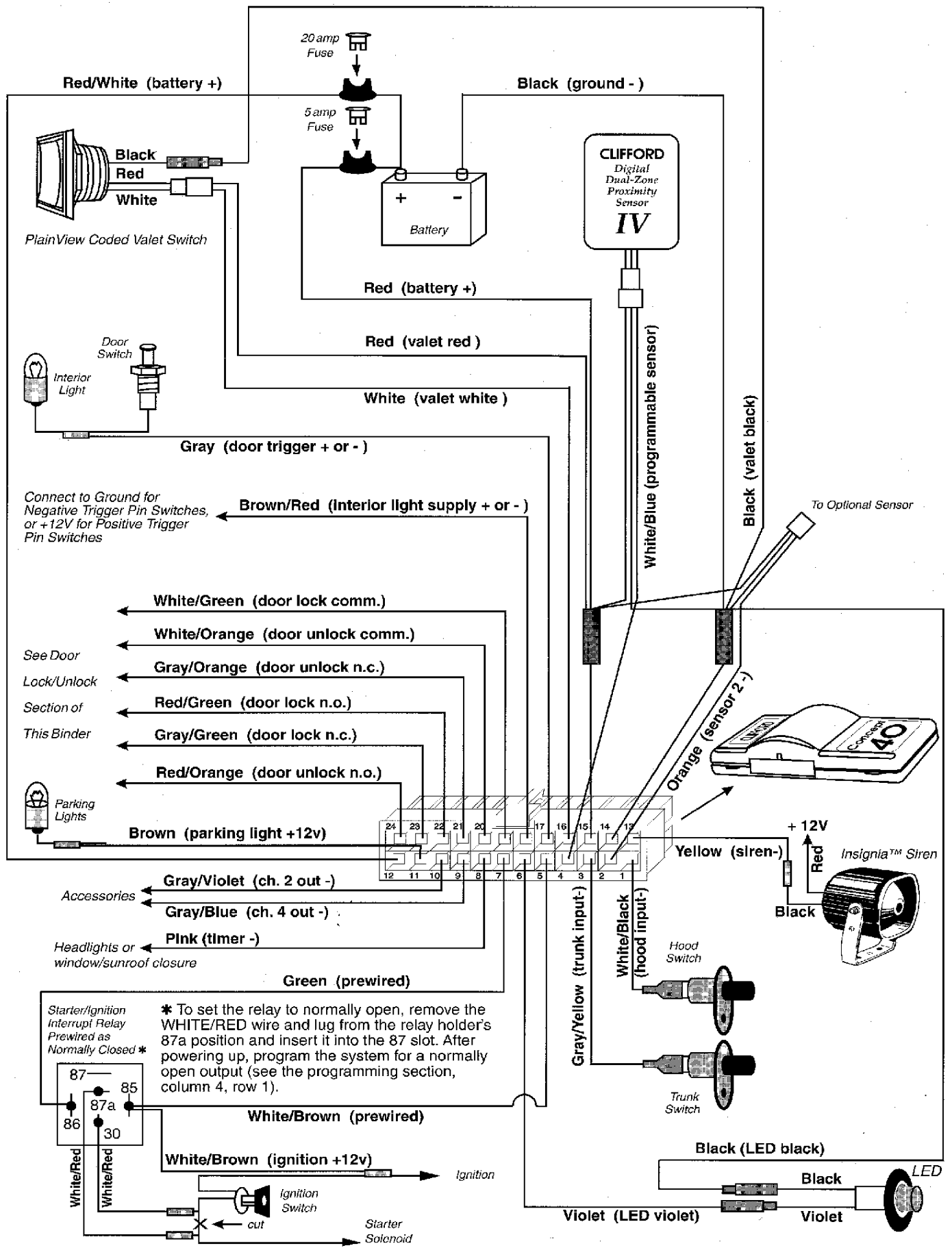
3. Make **final wiring connections** at the battery, then **plug in** the control unit connector.

4. **Set sensitivity** of each zone of the Dual-Zone Proximity Sensor IV and, if needed, set the **door lock pulse, high/low courtesy lighting feature, interrupt relay normally open/closed output and/or channel 4 and 5 output types** (timed/latched/pulsed).

5. **Test** the system.

6. Power and test **accessories**.

7. Secure the control unit, accessory modules and wiring.



## **Passenger Compartment Components**

### **Control Unit**

1. Install the control unit in the passenger compartment, **not** in the engine compartment.
2. Identify where the control unit will be installed. Route wires from this point, leaving slack in the wiring for ease of service. **Do not** plug the connector into the control unit all wiring is complete.

### **Antenna**

The short gray wire is the antenna. Its position and location will effect remote control range:

1. Do not shorten or lengthen the antenna wire.
2. Point the antenna wire away from the control unit.
3. Avoid positioning the antenna wire parallel to any wiring harness.
4. Keep the antenna and control unit as far as possible from metal.
5. The antenna is best positioned perpendicular to the largest metallic surface near the control unit.

### **Wireloom**

All Clifford systems are designed to be wired FROM the control unit TO each component. Route power and ground connections directly to the vehicle battery. Power and test the control unit before any optional accessories. **DO NOT** yet plug in the control unit connectors. Using the supplied tie wraps, separate the wires into the following groups:

1. For engine compartment connections: RED, RED/WHITE, BLACK, WHITE/BLACK and YELLOW. Sleeve these wires in vinyl tubing and pass them through an existing grommet into the engine compartment. If a new opening must be drilled, add a rubber grommet to prevent shorts and fire hazards.
2. For the door locks: GRAY/GREEN, WHITE/ORANGE, RED/ORANGE, RED/GREEN, WHITE/GREEN and GRAY/ORANGE.
3. For the Proximity Sensor: the WHITE/BLUE, RED and BLACK wires that terminate in a 3-pin connector. If installing an optional second sensor, group the ORANGE, RED and BLACK wires that terminate in a 3-pin connector.
4. For the LED: the BLACK and VIOLET wires that each terminate in a 1-pin connector.
5. For the PlainView switch: the RED and WHITE wires that terminate in a 2-pin connector and the BLACK wire that terminates in a 1-pin connector.

### **Ignition Input**

1. Locate the ignition switch wireloom under the dash and use a voltmeter to locate the one wire that carries +12V throughout **BOTH the cranks AND engine running cycles**, and 0 volt when the ignition is off.
2. Start the engine, then cut the ignition wire. The engine should die.
3. Connect the WHITE/BROWN wire to the ignition line as shown on page 5.

### **Selectable Starter/Ignition Interrupt Relay**

Concept 40 lets you use its prewired relay to interrupt the owner's choice of the starter or the ignition. What's more, you can set the interrupt to either normally closed or normally open. The normally-closed mode allows the driver to start the engine even in the unlikely event of a malfunction, normally-open ensures the engine can't be started by a thief if he tampers with system power or even if he removes the control unit! Discuss this with the vehicle owner so that he or she may make an informed decision. The relay is prewired and preprogrammed as a normally closed starter interrupt.

**NOTE: The starter circuit may have very high current. Be certain that both WHITE/RED wires are solidly connected. For maximum dependability, solder and shrink tube the relay's WHITE/RED connections.**

1. Select the line that the relay will interrupt:
  - a. **Ignition:** Use the ignition wire you identified above. Cut the wire between the engine and the WHITE/BROWN crimp connection you made.
  - b. **Starter:** Use a voltmeter to locate the **one** wire that carries +12V during the **cranking cycle ONLY**. Cut this wire, then try to start the engine. It should not crank.
2. Connect one WHITE/RED wire to one side of the cut wire, then the other WHITE/RED wire to the other side.
3. If you want the relay to be normally open, remove the WHITE/RED wire and lug from the relay holder's 87a slot (insert a small screwdriver above the slot and press down on the lug's latch) then plug it into the holder's 87 slot. After you have powered up the system, you must program the system for a normally open interrupt (see Programmable Features section and table on page 11 and select the column 4, row 1 feature).

### **LED Status Indicator**

Select a prominent location on the dash or console visible from both the passenger and driver windows. Discuss placement with the owner. The LED is off when the system is disarmed, flashes while armed, and glows in program and valet modes. To conserve vehicle battery power when the vehicle is armed for an extended period, the flash rate will automatically slow to half its normal rate when the system has been continuously armed for 48 hours, and will slow to one-quarter the normal rate after 96 hours.

1. Verify there is adequate space to accommodate the LED.
2. Drill a 5/16" hole and route the wires through it.
3. Mate the LED connectors to the same wire color connectors on the wireloom.
4. Press the LED into place.

### **Door Trigger**

Please refer to the **Door Trigger section** in this binder for information on polarity testing and connections.

### **Interior Light Supply**

If the door trigger polarity is negative, connect the BROWN/RED wire to ground; if the door trigger polarity is positive, connect it to +12V.

### **Door Locking/Unlocking**

Please refer to the **Door Lock section** in this binder for information on the various circuit types and connections.

### **PlainView Coded Valet Switch**

The valet switch is the weakest link of all other manufacturers' alarms since, just by hotwiring the ignition and flicking the switch, the thief will disarm the alarm and steal the car. The PlainView Coded Valet Switch offers absolute protection while at the same time is substantially more user-friendly and easier to access. Since Concept 40 has a *coded* valet mode, ***the switch can and should be mounted in plain view*** on the dash or console and within easy reach of the driver. Discuss placement of the switch with the vehicle owner. Avoid placing the switch where it may be accidentally toggled.

1. Verify there is adequate space to accommodate the switch.
2. Drill a 1/2" mounting hole.
3. Insert the wires through the hole and mount the switch.
4. Mate the switch's connectors to the same wire color connectors on the wireloom.

### **Digital Dual-Zone Proximity Sensor IV™**

This efficient new-generation radar sensor uses only 50% of the power than other radar sensors (so it can't drain the vehicle battery like other radar sensors do), yet the Digital Dual-Zone Proximity Sensor IV provides better sensitivity and far more precise discrimination. For ease of installation, it also has the smallest footprint of any radar sensor, so you can mount it in locations that no other radar sensor can go. To top it all off, you (and even the vehicle owner) can adjust, test and set the sensitivity of each of the two sensing zones via the remote control! The sensor's high-frequency radio waves pass through non-metallic materials. Suggested mounting locations include within the center console, behind the dash, or under the carpeting of the central hump or even in the headliner. The sensor must face out into the passenger compartment and should be positioned as close as possible to the center of the passenger compartment.

1. Affix the sensor where it will be mounted, but do not yet permanently mount it until after adjusting and testing sensitivity (you may find that you need to relocate the sensor).
2. Mate the sensor's connector to the wireloom's sensor 1 connector (RED, BLACK, WHITE/BLUE).

### **Parking Lights**

Please refer to the **Parking Light section** in this binder for information on polarity testing and connections.

### **Channel 2 Pulsed Output (when disarmed)**

The GRAY/VIOLET channel 2 output goes to ground for 0.5 seconds when button 2 is pressed (or for as long as button 2 is held) while the system is disarmed. It is primarily intended for a remote trunk release. Current is limited to 0.15 amps.

### **Channel 2 Timed Output (when armed)**

The PINK channel 2 timer output and an optional relay can be used to activate the headlights for any duration of your choosing between 1 sec. and 2 min. (factory preset to 30 seconds) when button 2 is pressed while the system is armed.

### **Channel 4 Output with Selectable Type and Selectable AutoActivation**

You can program the GRAY/BLUE wire to operate in any of these three manners:

- As a pulsed output of 0.5 second ground, or for as long as the button is held (this is the factory preset)
- As a latched output (i.e., the output stays at ground until channel 4 is activated a second time)
- As a timed output that stays at ground for any duration of your choice between 1 second and two minutes

The output is activated by pressing remote control button 4. Current is limited to 0.15 amp. You can also set this output to automatically activate every time the system is remotely armed (perfect if wiring as a timed output to close the power windows and sunroof). See the programming section on page 11 to change the type of output and/or AutoActivation.

### **Remote Headlight Activation (may require an optional relay)**

1. Connect a wire from the relay's terminal 30 to the wire that carries +12V *only* when the headlight switch is activated.

**NOTE: Most Japanese vehicles have negative-switching headlights and do not require a relay. If the headlight line goes to ground when the switch is turned on, connect the PINK wire to that line and skip the following steps.**

2. Connect the PINK wire (channel 2 when armed) to relay terminal 85.
3. Connect terminals 86 and 87 to +12V through a 30-amp fuse.
4. To program headlight duration, see page 11.

### **Automatic Window/Sunroof Closure (requires an optional relay)**

If the door key can close the power windows/sunroof, you can make them automatically close upon remote arming:

1. Connect a wire from the relay's terminal 30 to the wire that carries +12V or ground only when you turn the key.
2. If ground, connect terminal 87 to ground; if +12V, connect 87 to the RED/WHITE wire.
3. Connect terminal 86 to the RED/WHITE wire.
4. Connect the channel 4 output wire to terminal 85.
5. With the sunroof and all windows fully open, count how many seconds it takes for them to fully close.
6. Add two seconds to the count (for slower operation when cold), then program the system timer for that duration as noted on page 11 (column 3, row 4).
7. Turn on the *AutoActivate Channel 4 Upon Arming* feature as noted on page 11 (column 2, row 4).
8. Set the channel 4 output to timed as noted on page 11 (column 4, row 4).

### **Trunk Trigger**

Vehicles with a ground-switching trunk light will interface directly with the Concept 40 (on positive switching Rolls-Royce and Ford vehicles, use a relay to invert polarity). The switch may be located in or near the trunk latch or at the trunk light.

**NOTE: If the vehicle has a dashboard trunk ajar indicator, install one of the supplied diodes between the light and switch with the diode band pointing toward the switch.**

1. Connect the GRAY/YELLOW wire to the trunk switch (between the diode and switch if you added a diode).

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## **Engine Compartment Components**

### **Insignia Siren**

Mount the siren in the engine compartment away from hot or moving parts and where it cannot be reached from under the vehicle, preferably opposite the exhaust system. Point the siren down to avoid water collection.

1. Mount the siren using all three sheet metal screws supplied.
2. Connect the siren's BLACK wire to the wireloom's YELLOW wire.
3. Connect the siren's RED wire to +12V.

### **Hood Trigger**

Vehicles with a ground-switching hood pin switch will interface directly with Concept 40.

**If the hood light does not operate unless the parking lights are on, install one of the supplied diodes between the light and switch with the diode band pointing toward the switch.**

1. Connect the WHITE/BLACK wire to the hood pin wire (between the diode and switch if you added a diode).



## Final Wiring Connections

1. **Do not** plug in the control unit connector until step 6 below.
2. Connect the 5-amp fuse and fuseholder to the RED wire.
3. Connect the 20-amp fuse and fuseholder to the RED/WHITE wire.
4. Use ring connectors to attach the two fuseholders to the +12V battery lug without removing the terminal from its post.
5. Use a ring connector to attach the BLACK wireloom wire to the negative battery lug without removing the terminal.
6. Plug in the control unit connector. The system will power-up silently into its disarmed state (note that if all trigger points are closed, the system will AutoArm).

**NOTE: Power and test accessories after the basic system has been tested. Individually fuse all accessory power connections. Individually fuse all +12V battery connections.**

## SmartPowerUp™ II

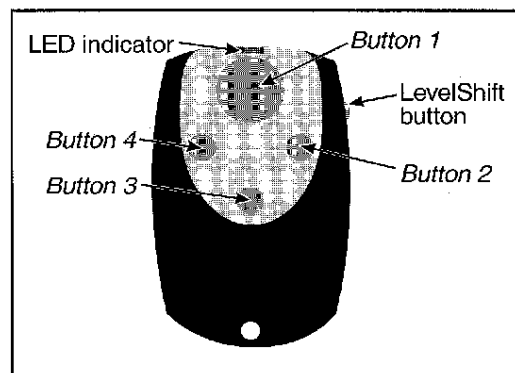
SmartPowerUp II ensures that the system powers up in the same state (disarmed, armed or valet) it was last in. When you first power up the system, it will silently enter its disarmed state (note that if all trigger points are closed, the system will AutoArm). Unlike previous versions, you don't need to turn on the ignition switch in order to power-up silently.

## Remote Control Operation

**To transmit either channel 1, 2, 3 or 4:** Just press either button 1, 2, 3 or 4. For instance, to transmit channel 3, press button 3. While you transmit, the LED indicator will blink once every second: this indicates **level 1**.

**To transmit either channel 5, 6, 7 or 8:** Press the LevelShift button once. This shifts buttons 1–4 to level 2 (channels 5–8). Then press the desired button *within the next 7 seconds*. For instance, to transmit channel 5, press the LevelShift button once, then press button 1. While you transmit, you'll notice that the LED indicator blinks twice, pauses, blinks twice, etc.: this indicates **level 2**.

**To transmit channel 9, 10, 11 or 12:** Press the LevelShift button twice. This shifts buttons 1–4 to level 3 (channels 9–12). Then press the corresponding button within the next 7 seconds. For instance, to transmit channel 10, press the LevelShift button twice, then press button 2. While you transmit, you'll notice that the LED blinks three times, pauses, blinks three times, etc.: this indicates **level 3**.



**NOTE: One second after you stop transmitting level 2 or level 3 (channels 5–12), the remote control automatically returns to level 1 (channels 1–4).**

## Sensor Adjustment

You interactively test and adjust the Digital Dual-Zone Proximity Sensor IV via the remote control. You will be spared from repeated arming and disarming, and obnoxious siren noise. Setting and testing sensitivity is a simple 4-step process:

1. **Disarm** the system with the remote control, open the driver's window, then select the sensor zone you wish to adjust:
  - a. **Interior zone:** Transmit **channel 11** (LevelShift twice, then button 3).
  - b. **Exterior zone:** Transmit **channel 12** (LevelShift twice, then button 4).
2. To **test** the current sensitivity setting:
  - a. **Interior zone:** **Lean** into the passenger compartment. You will hear a chirp when the zone detects your presence. Ideally, it should chirp when you lean over the driver's seat, but remain silent when you lean toward the window.
  - b. **Exterior zone:** **Lean** toward the driver's window. You will hear a chirp when the zone detects your presence. Ideally, it should only chirp when you are moving within one foot of the vehicle.
3. To **increase** sensitivity, press **button 2** on the remote control. To **decrease** it, press **button 4**. Each time you increase sensitivity, the siren will chirp twice, one chirp confirms each decrease and 3 chirps indicate minimum and maximum settings. There are 32 sensitivity levels for the Proximity Sensor's interior zone; 16 for the less critical warning zone.
4. Repeat steps 2 and 3 until you are satisfied with the sensitivity, then press **button 1** to record the new sensitivity setting (three chirps to confirm exit). You may now set the other sensor zone, or press button 1 again to arm the system.

## High/Low Feature for Factory-Delayed Courtesy Lights

Some vehicles have a courtesy light delay or dimming circuit, which interferes with the security system being able to detect the door trigger upon remote arming. Clifford's High/Low feature solves that problem. If you are working on a vehicle with delayed courtesy lights, turn on the High/Low feature (column 4, feature 3) as noted on page 11.

### System Check

1. Close all doors and **arm** with button 1 of the remote control. The parking lights will **flash twice**, the doors will **lock** and the LED will begin to **blink**.

- a. If you hear 4 chirps immediately or after the initial two chirps, a trigger or sensor is open or active. Disarm with the remote control, enter the vehicle and turn on the ignition. The LED will blink 1–5 times, pause, then repeat the same number of blinks (the blink cycle repeats five times for your convenience). Refer to the chart:

Number of blinks	Trigger/Sensor Identification
1 blink	Proximity Sensor
2 blinks	Optional sensor
3 blinks*	Door trigger*
4 blinks	Trunk trigger
5 blinks	Hood trigger

2. **Disarm** with the remote. You will hear one chirp, the parking lights will **flash once**, the doors will **unlock** and the courtesy light(s) will **turn on**.
3. **Re-arm** the system. *If the system has been set for delayed courtesy lighting (the high/low feature), be sure to wait until the interior lights have turned off before you perform step 4.*
4. Unlock and **open a door**. The siren will sound immediately and the parking lights will flash continuously. **Disarm** with the remote control. Close the door, **re-arm** and test each remaining door.
5. **Arm** the system and test the **hood** and **trunk** triggers.
6. Secure the control unit and position the antenna as noted on page 6.

### FACT—False Alarm Control and Test

The system microprocessor automatically checks for another activated sensor or trigger before sounding the siren a second time, **thus preventing any further false alarms**. If you wish to test **FACT**, simply:

1. Arm the system with the remote control.
2. Wait 10 seconds after the interior light turns off, then thump the vehicle with your fist to activate the siren.
3. Do not disarm the system, let the siren complete its cycle.
4. Hit the vehicle again. The alarm should be silent.
5. Unlock and open a door. The alarm should sound immediately. You may now disarm.

### Multiple-Event TotalRecall™

The system's non-volatile memory records the identity of the last eight activated or malfunctioning triggers and sensors, which allows you to instantly track down the source of a customer complaint about falsing. To identify the triggers and sensors stored in the system's non-volatile memory, do the following:

1. With the **ignition off**, flick the PlainView switch to its **latched** side.
2. Press remote control **button 1** to "**arm**," and then again to "**disarm**."
3. The **LED will blink 1–5 times**, pause, then blink 1–5 times, etc. Write down the number of blinks in each cycle.
4. Refer to the **chart** above. The first number you wrote down was the most recently activated trigger or sensor. The next number is the second most recent, and so on up to as many as the last eight activations.
5. If it appears that the Proximity Sensor or an optional sensor is often activated, decrease the sensitivity of that sensor. If, for example, a certain trigger was activated several times, check the pin switch operation and check the wire for possible shorting.

\* The high/low feature (see above) must be off in order for the system to read the door trigger upon remote arming.

## Programmable Features

Concept 40 comes from the factory with its features pre-programmed as noted in bold letters in the table below. You will note that all the installation-related features are conveniently located in column 4. To change the setting of any programmable feature, use the procedure noted. To restore the feature to its factory setting, just repeat the procedure:

1. Note of the column (across) number and 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 already running).
3. Enter the factory preset **valet code** (the single digit 2) by tapping the PlainView switch's **momentary side twice**, then press to **latched**, then **press and hold the momentary side** for about 3 seconds until you hear one siren chirp and the LED turns on to acknowledge program mode entry. The system is now in the "Feature Select" position.
4. *Select the feature column:* **Toggle** the switch in and out of the **latched** position the same number of times as the column number (NOTE: each latched-to-center motion is counted as one). **Pause**. You will then hear the same number of chirps as the column number you have selected, audibly confirming your selection.
5. Within 10 seconds, *select the feature row:* **Press and release** the **momentary side** of the switch the same number of times as the feature's row number. You'll hear a chirp each time you press the momentary side 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 chirps: **Two chirps = ON, one chirp = OFF**.
8. You may select another feature, or you may exit program mode:
  - a. To select another feature in that same column, repeat step 5 within the next 10 seconds (after 10 seconds, 3 chirps indicate that you are now back in 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 3 chirps and the LED will turn off to indicate exit of program mode), or wait 60 seconds and the system will automatically exit program mode.

It may sound complicated, but it really isn't. Briefly, here is all you do: Choose the feature you want to change, enter program mode, select the feature's column and row, then turn off the ignition. *That's it!*

**Concept 40 Programmable Features Table: 1 chirp = OFF, two chirps = ON**

Feature Select	Column 1 1st latched	Column 2 2nd latched	Column 3 3rd latched	Column 4 4th latched
<b>Row 1 1st momentary</b>	Add new remote to channel 1 <b>NOTE 1</b>	AutoLock: on/off	AutoArming: on/off	Starter/ignition interrupt: normally open/closed (1/2 chirps)
<b>Row 2 2nd momentary</b>	Add new remote to channel 2 <b>NOTE 1</b>	AutoUnLock: on/off	AutoArm & Lock: on/off	Lock pulse duration: 3sec/1sec (1/2 chirps)
<b>Row 3 3rd momentary</b>	Add new remote to channel 3 <b>NOTE 1</b>	FACT: on/off	15-second entry delay: on/off	High/Low: on/off
<b>Row 4 4th momentary</b>	Add new remote to channel 4 <b>NOTE 1</b>	AutoActivate channel 4 upon remote arming: on/off	System timer: 1sec.-2.0min (30sec) <b>NOTE 3</b>	Channel 4 output: <b>pulsed/timed/latched</b> (1/2/3 chirps) <b>NOTE 4</b>
<b>Row 5 5th momentary</b>	Erase all channels <b>NOTE 2</b>	QuietChirps: on/off	Siren duration: 60/30 seconds (1/2 chirps)	<b>NOT USED</b>
<b>Row 6 6th momentary</b>	Headlight Reminder: on/off	Long-term chirp silencing: on/off	Set a new secret valet code	<b>NOT USED</b>

*The gray cell indicates a feature that requires programming only by the vehicle owner. DO NOT change the valet code.*

- **NOTE 1:** Transmit the appropriate channel of the new remote. You will hear the same number of chirps as the channel selected (e.g., 3 chirps for channel 3) to confirm programming of that channel.
- **NOTE 2:** When you hear one chirp, all remote control codes have been erased from system memory. You must now add the new and/or existing remote controls to the system (i.e., program channels 1–4 of each remote that will be used with the Concept 40).
- **NOTE 3:** The system timer starts as soon as you select this feature. When the duration you wish has been reached, press button 1 on the remote control. You will hear two chirps to confirm the new duration. Channel 2 when armed will use this duration. If channel 4 is set to a timed output (see note 4), it will now have this duration.
- **NOTE 4:** The channel 4 output may be programmed to either pulsed, timed or latched (factory preset to pulsed). A timed output is useful as a power window/sunroof closer or for use with hydraulics, amp rack motors, etc. A latched output is useful for activating the audio system, under-carriage neon lighting, etc. To change the output type, simply select this feature. 1 chirp indicates that the output will be pulsed, 2 chirps indicate timed, and 3 chirps indicate latched operation.

**EXAMPLE: Set the system timer to a 10-second duration and change channel 4 to a timed output:**

1. Turn the ignition on, enter the valet code (momentary, momentary, latched, center), then hold to momentary until you hear a chirp.
2. Select column 3 by flicking the switch between latched and center 3 times. Wait for the 3 chirp/column 3 confirmation.
3. Press and release the momentary side 4 times to select row 4 (you'll hear a chirp each time you press the momentary side). When 10 seconds have passed, press remote control button 1 to stop the timer (you'll hear a two-chirp confirmation).
4. Select column 4 by flicking the switch between latched and center 4 times. Wait for the 4 chirp confirmation.
5. Press and release the momentary side 4 times to select row 4 (you'll hear a chirp each time you press the momentary side). Pause. You will hear two chirps to indicate that the channel 4 output will now be timed. If you immediately tap the momentary side 4 times again (to re-select this feature while still in column 4), the output type will become latched (confirmed with 3 chirps). Immediately tap another 4 times and the output will return to its pulsed state (confirmed with one chirp).

### **What is a Code Grabber?**

Unlike scanners, which are made useless by remote controls with many millions of possible codes (since it would take years for a scanner to transmit each possibility one after another), a code grabber can simply "grab" off the air from, hundreds of feet away, the digital code transmitted by a car alarm remote control. When the vehicle owner leaves, the thief simply plays back the code to disarm the alarm and unlock the car doors. A code-grabber will duplicate any remote control code, even if the remote control has billions or trillions of code possibilities. ***Every other brand of car alarm can be deactivated that easily.*** But not Clifford systems with Anti-CodeGrabbing. Clifford's proprietary ACG technology uses complex digital signal processing and unbreachable encryption to randomly change the digital code each and every time the remote control is used. The same code will ***never*** be retransmitted and the control unit will ***never*** accept the same code. Thus the code played back by the thief's code grabber will never deactivate a Clifford ACG system. ***Only ACG can make a car alarm impervious to code-grabbing, and only Clifford systems have ACG.***

### **User-Programmable Anti-CodeGrabbing Remote Controls**

The Concept 40 can respond to as many as 4 Clifford 12-channel Anti-CodeGrabbing remote controls with a few flicks of the PlainView switch. Just as easily, the code of a lost or stolen remote control can be deleted. Refer to page 11 for instructions on how to add a new remote control to the system. The codes of a lost or stolen remote control can be erased simply by using the ***Erase all channels*** feature noted in the Programmable Features section (column 1, row 5) and reprogramming the remaining remote control(s) into the system.