AL-100C

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

INSTALLATION INSTRUCTIONS

Contents

Wiring Diagram 16-17
Installation Considerations 3-5
Mounting the Control Module, Status Light, Valet Switch & Optional Holder, Optional Sensor Port

6-Pin Arm/Disarm Wiring Harness

Determining Connection Type 6
Connection Type Wiring Diagrams 7-11

5-Pin Main Wiring Harness

Black Wire / Chassis Ground 12
Red Wire / Constant Power 12
Red, White & Orange Wires / Starter Interrupt 13-14
Yellow Wire / Ignition Power 15
Gray Wire / Trunk Release Disarm Input 15

8-Pin 6-Wire Secondary Wiring Harness

Green Wire / Negative Door Trigger ..... 15 & 18
Violet Wire / Positive Door Trigger 18-19
Blue Wire / Negative Instant Trigger 19-20
White Wire / Positive Flashing Parking Light Output 20-21
Pink Wire Horn Output 22-23
Brown Wire / Positive Output for an Optional Electronic Siren 23-24

Plug-In Power Doorlock Interface Port 24-29
Programmable Features 30-31

Switch #4- Automatic Ignition Doorlocking: This feature has the security system automatically lock the doors 1 second after the ignition switch is turned on, and immediately unlock them when the ignition switch is turned off. To have this automatic ignition locking feature operate, set switch #4 to the "up" position; to turn off automatic locking and unlocking when the ignition is turned on and off set switch #4 to the "down" position.
Automatic Ignition Doorlocking is factory-set "on" (switch #4 up)

Switch #5- Current Sensing: With this feature turned on, when the AL-100C is Armed it can then be Activated by its sensing a current draw from the vehicle's battery. To have the system Activate if a current draw is sensed, set switch #5 "down"; to turn off Current Sensing set switch #5 to the "up" position.
Current Sensing is factory-set "off" (switch #5 up)

Switch #6- 15 Second Entry Delay: When this feature is on, the system while wait 15 seconds before activating if a door is opened, but only if it was previously allowed to Last Door Arm itself. Please consult the Operation Guide for a full description of how this feature affects the system's operation. To turn on the 15 Second Entry Delay, set switch #6 to the "down" position, to turn off the 15 Second Entry Delay set switch #6 to the "up" position.
15 Second Entry Delay is factory-set "off" (switch #6 up)

Programmable Features

The AL-100C has six **Programmable Features**, which are configured by switches on the rear panel of the control module (see the Wiring Diagram overview on pages 16-17). A brief description of, and the switch setting for, the six programmable features are:

Switch #1- Chirp Confirmation On Or Off: This feature determines whether or not the AL-100C will have confirmation chirps when it is Armed or Disarmed. This feature controls the confirmation chirps for both the Pink (-) Horn wire and the Brown (+) Siren wire. To program the unit to have confirmation chirps set switch #1 to the "down" position; to silence the confirmation chirps set switch #1 to the "up" position.
Chirp Confirmation is factory-set "on" (switch #1 down)

Switch #2- Doors Will Lock With Automatic Last Door Arming: This feature adds the locking of the doors to the following "Last Door Arming" feature. Set switch #2 "down" to turn on this feature, or set switch #2 to the "up" position to turn it off.
Doors Will Lock With Automatic Last Door Arming is factory-set "off" (switch #2 up)

Switch #3- Last Door Arming: With this feature turned on the AL-100C will arm itself automatically every time one of the vehicle's doors is closed. To have the system automatically Last Door Arm itself, set switch #3 to the "down" position; to turn off Last Door Arming set switch #3 to the "up" position.
Last Door Arming is factory-set "off" (switch #3 up)

Installation Considerations

The single most important factor regarding the proper operation and effectiveness of a vehicle security system, and thus its owner's satisfaction, is its installation!!!

Take special care in **making wiring connections**; soldering is most desirable, followed by correct crimp-type terminals. "Quick-tap" or "t-tap" connections are acceptable, providing that extreme care is taken to ensure that they are done correctly. The "strip and twist" method of joining wires is the least desirable; although a satisfactory connection can be made if done properly, this is the least reliable method of joining wires. When using any method, it is most important that the spliced wires be adequately insulated; not only to prevent short-circuits, but to also protect the wires' splice from exposure to the weakening effects of air and moisture.

Always **mount the Control Module** in the vehicle's interior compartment, in a secure location that is not easily visible or accessible. Ensure that moisture, vibration and temperature extremes are minimized. Acceptable locations include mounting behind the dash, behind the glovebox or other interior panels.

The **Status Light** and **Valet Switch** are important parts of the AL-100C system and must be installed. The installer has two basic installation options for these items.

These items may be separately installed as a **custom mounting**.
Mount the Status Light in the vehicle interior where it can be easily seen by the operator, and preferably where it can be seen from the exterior of the vehicle. Drill a 9 / 32" hole in a suitable interior panel, route the wiring harness through the hole to the control module, and

snap the Status Light in place. Plug the Status Light's small 2-pin plug into the matching red port on the control module. Mount the Valet Switch, using its adhesive pad, in a hidden location which is accessible to the operator; carefully route the wires to the control module, and plug the valet switch's blue 2-pin plug into the control module's blue 2-pin port.

Also included is a **combination holder** assembly for the Status Light and Valet Switch (exploded view of all parts, below). Mount the combination holder assembly in a location where it can easily be seen by the driver, and preferably where it can be seen from outside. Two mounting options are provided: double-sided adhesive tape for "no-mar" mounting, and 2 Phillips screws for a more permanent mounting.

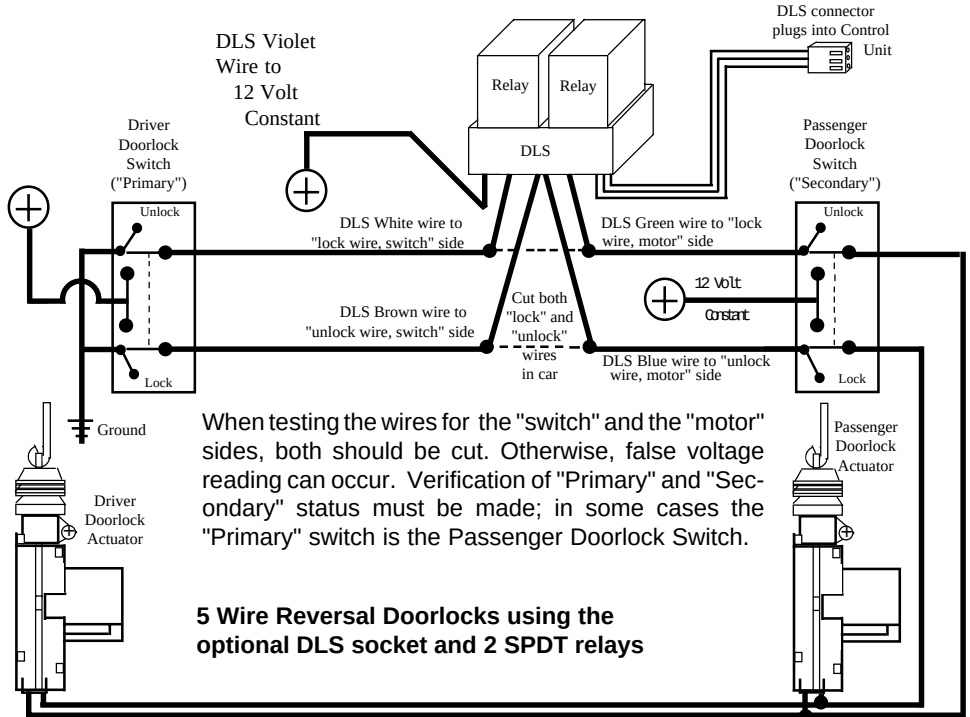
If using the adhesive tape, properly prepare the mounting surfaces to ensure good adhesion, and then affix the completed combination holder assembly. To complete the holder assembly, adhere the Valet Switch to the upper combination holder half, insert the Status Light into the upper half collar, and then snap the two halves together with the wires exiting the hole in the rear of the upper half.

If using the screws for a more permanent mounting, carefully screw the upper half to its mounting location (avoid overtightening), install the Valet Switch and Status Light to the upper half, and then snap the assembly

will be grounded regardless of the switch's position. Of the two remaining wires, one will show 12 volts positive when the switch is pushed to "lock", and the other will show 12 volts positive when the switch is pushed to "unlock".

These two wires are both routed to the doorlock actuators and are connected to either end of the actuator's motor winding. When the switch is pushed to one position, one of these two wires will have 12 volts. This voltage flows through the wire to the actuator's motor winding, and since the other wire is still *resting at ground* an electrical circuit is completed. When the switch is pushed to the opposite position the electrical flow is *reversed*. When the correct wires are found, they must be cut. Notice in the diagram (following page) that the driver's switch is the primary switch and referred to as the "switch" wires. The wires that go to the secondary switch are referred to as the "motor" wires. Even though the cut is made between the switches, the two sides are still correctly called the "switch" and the "motor" sides, with consideration of "Primary" and "Secondary" switch; please see the diagram.

There are **other, specialized types of power doorlock systems** which may be encountered. Examples of these are the single wire, dual-voltage which has appeared in some late model vehicles, vehicles which control the power doorlocking system through the on-board data bus, and the vacuum pump types found in older Mercedes vehicles. In most all of these cases, Omega will have an optional specialized power doorlock interface available, in which case any needed instructions will be included with the specialized interface.



When testing the wires for the "switch" and the "motor" sides, both should be cut. Otherwise, false voltage reading can occur. Verification of "Primary" and "Secondary" status must be made; in some cases the "Primary" switch is the Passenger Doorlock Switch.

5 Wire Reversal Doorlocks using the optional DLS socket and 2 SPDT relays

halves together with the wires exiting the hole in the rear of the upper half.

To complete any of the mounting methods, carefully route the wirings to the control module to avoid any chances of them being chafed or pinched, and plug them into to their respective control module ports.

The control module has a **Dual Zone Sensor Port** for the easy addition an optional sensor device. When adding an optional sensor, follow the installation instructions included with the sensor. After installing, route the harness and connector from the sensor to the security system control module. Plug the sensor's connector into the module's White port marked "Aux.".

The connection and mounting of the **optional electronic siren** is on page 24, and **power doorlock connections** is the final section of this booklet.

6-Pin Arm/Disarm Harness

The 6-pin harness contains input wires which will arm and disarm the AL-100C. These wires connect to the vehicle's power doorlocking system. A 12 Volt Positive pulse on the **Pink** wire will arm the system and a 12 Volt Positive pulse on the **Gray** wire will disarm the system. The **Blue** wire is a pass-through wire connected to the Pink wire and the **Green** wire is a pass-through wire connected to the Gray wire. Both of these circuits are diode-isolated.

The **White** wire is the "lock" override wire and the **Brown** wire is the "unlock" override wire - any change in the electrical state of these wires while the Pink and Gray wires receive a Positive pulse will cause the AL-100C **not** to arm or disarm. The White and Brown wires have the capability of learning polarity - both Negative and Positive switch types will operate the

White and Brown wires. Because of this polarity-learning circuitry, these two wires **must be connected** when the AL-100C is first supplied Power and Ground. Also, if the White or Brown wire is not needed, the unused wire(s) **should be grounded**.

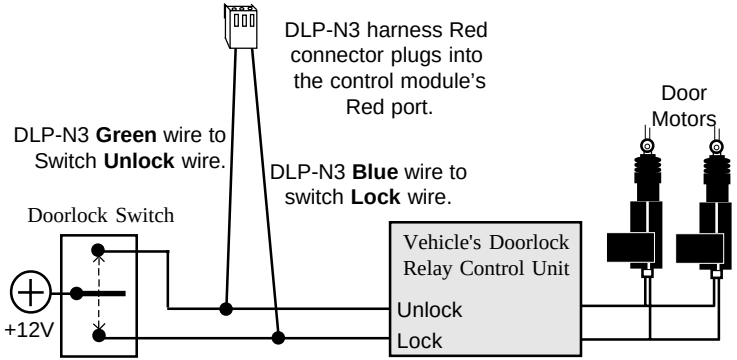
An additional and related wire is found on the 5-pin Main Harness. If the Gray wire on this harness receives 12 Volt Positive pulse, the AL-100C will disarm; this wire may be connected to a Positive trunk release wire, thus disarming the AL-100C when remote trunk release is utilized.

Five basic types of system connections are used to install the AL-100C as an "add-on" alarm, and are referred to as Types 1 through 5. A diagram of each of these five Types are shown on the following pages.

How to test to determine Type 1 , Type 2 or Type 3 connections (**Type 4** is for Ford vehicles with Negative pulse doorlock switches and **Type 5** is a universal connection).

Step 1 - Connect a Volt/Ohm Meter or Digital MultiMeter to the door **switch** wires.
Step 2 - Use the **transmitter** to lock and unlock the doors- **do not use either door switch**.

If the VOM or DMM indicates any change in polarity, it can be determined that the vehicle's remote keyless entry unit back feeds power (Positive or Negative) to the door switch when the transmitter is used. If the doorlock switches are configured to switch Positive pulses and none of the doors unlock after cutting the wire, the **Type 1** wiring diagram may be used. If after cutting the vehicle's unlock wire the driver door only still unlocks, then use the **Type 3** Connection. If the VOM or DMM indicates no change in polarity, then it can be determined that the vehicle's remote keyless entry unit does not back feed power (Positive or Negative) to the door switch when the transmitter is operated, use the **Type 2** Connection.



3 Wire Positive Doorlocks using the AL-100C Control Unit outputs

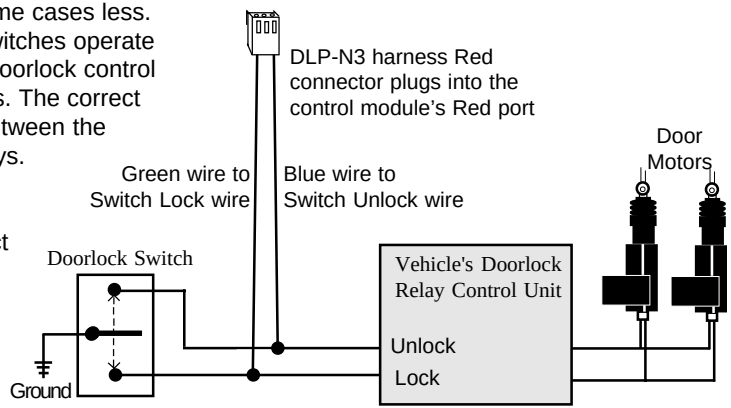
CONNECTION: Connect directly as shown; use the included DLP-N3 doorlock harness **and simply reverse its lock and unlock wire colors**. If the system is a 5 Wire Reversal system, a DLS and two relays must be used.

5 Wire Reversal Rest At Ground Systems differ from the Negative and Positive Pulse systems in the fact that there are no relays or doorlock control unit. In this type of system, the switches themselves supply the positive voltage directly to the doorlock actuators, and, more importantly, provide the return ground path. The correct doorlock interface for this type of system is the optional DLS and 2 relays. The important thing to remember is the wires in this system *rest at ground,* which means that the vehicle wires must be "opened", or cut, to properly make the connections between the AL-100C and the vehicle's doorlock system.

Examine the wires on the back of the switch. Normally five wires will be found. Of these wires, one will be constant 12 volts positive, regardless of the switch's position. Two wires

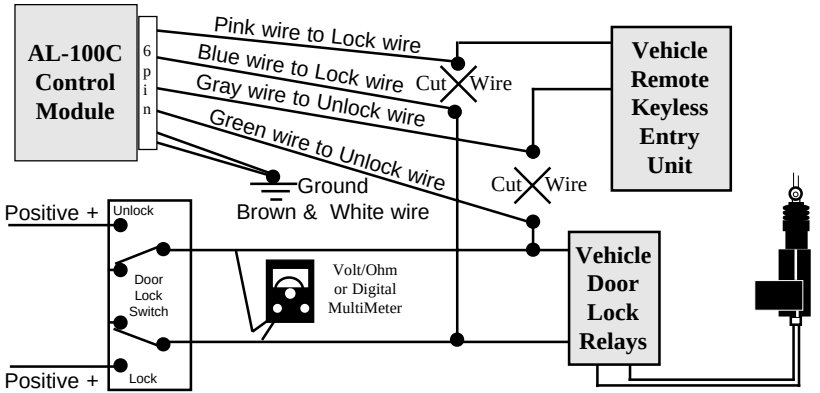
is pushed to the "lock" position, and the other wire will show ground when the switch is pushed to the "unlock" position. With the switch at rest, these two wires will read voltage, usually 12 volt positive but in some cases less. The wires from the switches operate doorlock relays or a doorlock control unit with built-in relays. The correct connection point is between the switches and the relays.

CONNECTION: The included harness (DLP-N3) allows direct connection between the security system and a 3-Wire Negative Pulse doorlocking system.



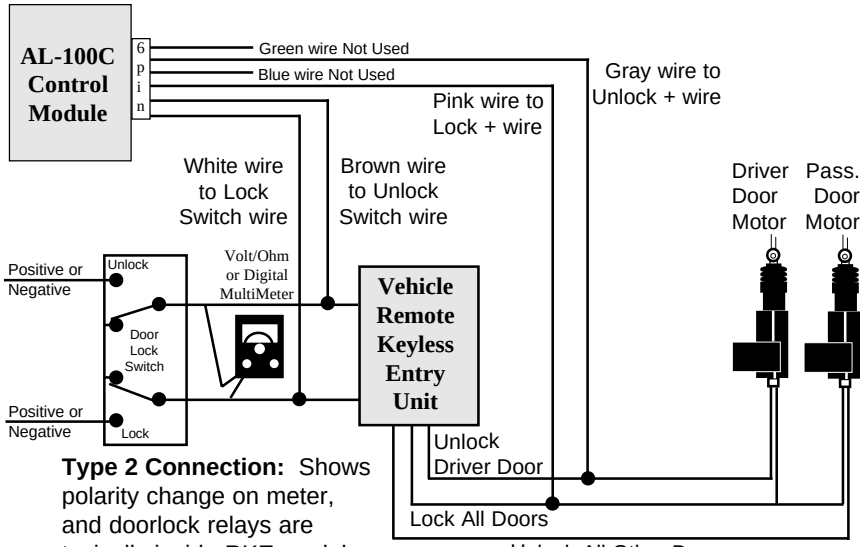
3 Wire Negative Doorlocks using the AL-100C Control Unit outputs

3 Wire Positive Pulse Systems are very similar to the Three Wire Negative Pulse system except the vehicle's doorlock switches use 12 volt positive pulses to operate the vehicle's doorlock relays or control unit. Examine the three wires on the back of the switch; **if more than three, suspect a 5 Wire Reversal system**. One will be constant 12 volt positive, regardless of the switch's position. Of the two remaining wires, one will show Positive when the switch is pushed to "lock", and the other will show Positive when the switch is pushed to "unlock".



Type 1 Connection: Meter shows polarity change before the Lock and Unlock wires are cut. The doorlock relays and RKE unit are also separate.

The Type 2 Connection: When the Gray or Pink wires receive a Positive pulse the security system will arm or disarm. If the Brown or White wire receive a Positive or Negative pulse at the same instant
that the Gray or Pink wire receives a pulse, the system will not arm or disarm because the door switch should not operate the system. The Brown and White wires "learn" the polarity of the switch wires. Therefore, these wires must rest either at 12 Volts Positive or at Negative ground.



Type 2 Connection: Shows polarity change on meter, and doorlock relays are typically inside RKE module.

The Type 3 Connection: This system typically has doorlock relays that are separate from the Remote Keyless Entry module with the exception being the driver door unlock relay is inside the RKE module. The Type 3 Connection utilizes the unlock operation parameter that

and unlock them when the ignition switch is turned off.

- ✓ The system will lock the doors upon 90 Second Automatic Rearming.
- ✓ If the system is triggered, it will relock the doors. Should a door be open when this occurs, the doors will relock when the door is shut.
- ✓ If an optional sensor triggers the Prewarn feature, the doors will relock.
- ✓ If Automatic Last Door Arming is utilized, the system can be programmed to lock the doors upon arming.

This doorlock output is a dual polarity type - upon arming, of the two pins which are the "lock" and "unlock" outputs, one produces a Negative pulse and the other produces a Positive pulse. These two pin reverse the same operations upon disarming. Thus, this type of doorlock output allows direct connection to vehicles with Positive or Negative pulse systems, which are the vast majority found with existing keyless entry systems. The center pin of the doorlock output port is a 12 Volt Positive output for optional relay coils only; optional relays are needed to connect the AL-100C to the reversal type of power doorlocks.

All connections should be with proper terminals, connectors, or by soldering and insulating with quality vinyl electrical tape or heat shrink tubing. All wiring should be carefully routed to avoid the possibility of chaffing or otherwise being damaged.

The vast majority of power doorlocks are found as three system types: 3 wire negative pulse, 3 wire positive pulse and 5 wire reversal, rest at ground. The best way to identify a doorlock system is to examine the doorlock switch's wiring.

3 Wire Negative Pulse Systems are typically indicated by the presence of three wires at the switch. Of these, one will show constant ground, regardless of whether the switch is being operated or not (at rest). Of the remaining two wires, one will show ground when the switch

MOUNTING THE SIREN: When mounting the optional siren, find a location in the engine compartment away from the extreme heat of the engine and manifold. A suitable location will offer a firm mounting surface, will also allow sound dispersion out of the engine compartment, and not be accessible to a thief. The siren must be pointed downward to avoid moisture collecting inside it and to enhance sound dispersal.

CONNECTION: The Brown wire is connected directly to the optional siren's Red wire, and the siren's Black wire is connected to chassis ground. Look for and utilize, if possible, an existing grommet in the firewall through which to route the siren Positive wire; ensure that this wire is protected from shorting against the metal of the firewall. Carefully route and secure the wire between the AL-100C control module and the siren.

NOTES; PINK & BROWN WIRES:

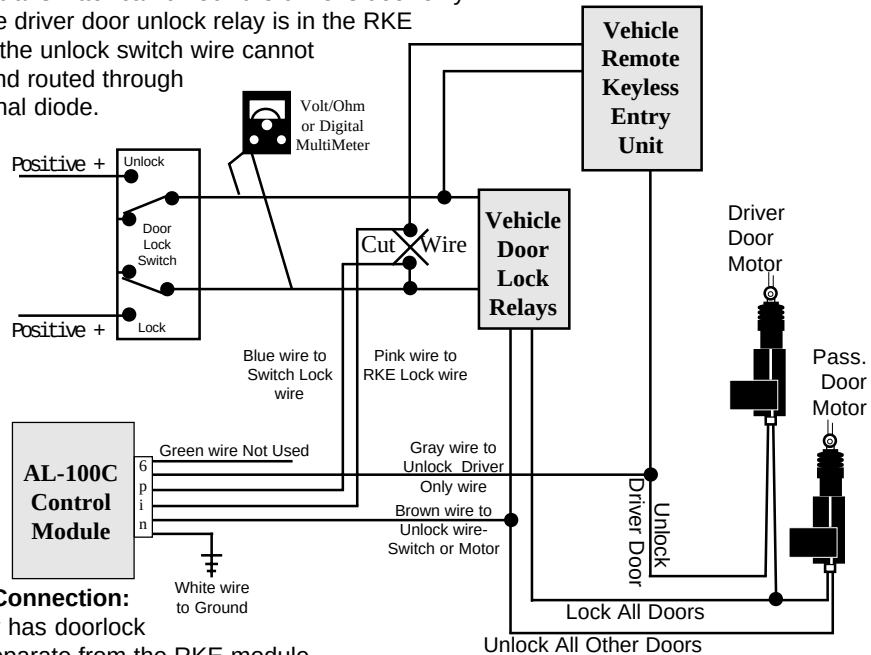
- ✓ Both wires have chirp and activated system output.
- ✓ The Pink wire's activated system output ii Negative pulsed, and the Brown wire's is Positive steady.
- ✓ If desired, the vehicle's existing horn and the optional electronic siren can both be utilized together for an extremely loud and effective security system.

Plug-In Power Doorlock Interface Port

Why does the AL-100C have power doorlock outputs? Keep in mind that the existing factory remote keyless entry system and existing power doorlocks are operating the AL-100C's arming and disarming. With these outputs, the AL-100C is simply providing these additional features:

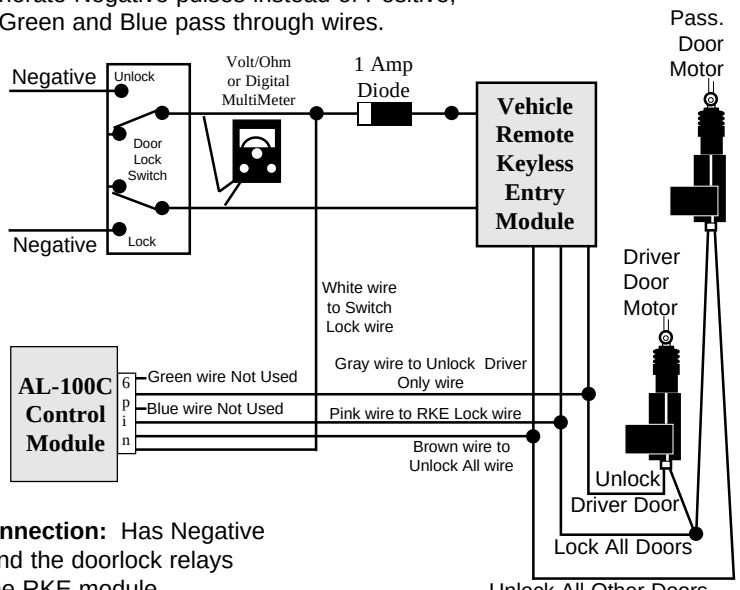
- ✓ The system can be programmed to lock the doors when the ignition switch is turned on,

only the transmitter can unlock the driver's door only. Since the driver door unlock relay is in the RKE module, the unlock switch wire cannot be cut and routed through the internal diode.



Type 3 Connection: Typically has doorlock relays separate from the RKE module.

The Type 4 Connection: This system is used to interface the AL-100C with many Ford, Lincoln and Mercury vehicles. In this type of Remote Keyless Entry system, all of the doorlock relays are built into the RKE module, a back feed pulse is generated by the module and the doorlock switches generate Negative pulses instead of Positive, preventing using the Green and Blue pass through wires. The diode is needed to block the negative pulse generated by the Remote Keyless Entry unit so that the AL-100C can only detect the negative pulse from the switches. Connections are made easiest at the RKE module itself.



Type 4 Connection: Has Negative switches and the doorlock relays built Into the RKE module.

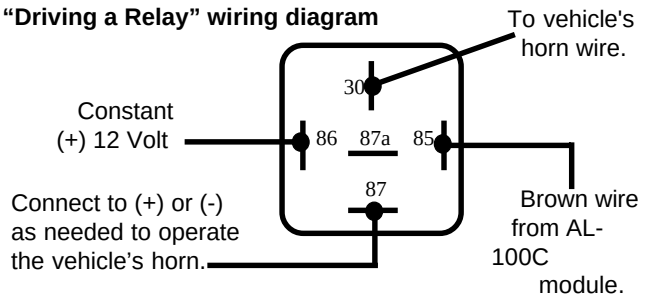
Negative chassis ground. If the horn sounds when probed in this manner, a direct connection may be made.

CAUTION! Avoid the airbag circuit! Improper use of a test light can cause deployment of the airbag, which may result in bodily injury! Test lights can also damage on-board computers and associated sensors.

Once the vehicle's horn wire is identified and confirmed to draw (-) Negative 250mA or less, the Pink wire may be directly connected to the vehicle horn wire. If the presence of a factory-equipped horn relay cannot be confirmed, use the following diagram for "Driving a Relay".

CONNECTION: The **Driving a Relay** connection of the Pink wire is used when the vehicle does not have an existing horn relay only, or the vehicle's horn circuit is (+), or otherwise draws more than (-) Negative 250mA. This diagram shows how to configure the optional standard automotive relay.

"Driving a Relay" wiring diagram



The **Brown wire** is a 1 amp Positive 12 Volt output which sounds an optional electronic siren as part of the system's audible output. Besides the polarity difference, unlike the Pink wire, the Brown wire has a steady output during a system activation.

The **Pink** wire is a 250mA Negative output which sounds the vehicle's existing horn for the confirmation chirps, and when AL-100C is activated. Unlike the Brown wire, this output pulses .5 second on, .5 second off when a system activation does occur. The Pink wire may be connected one of two ways-

✓ **Direct**, if the vehicle horn circuit includes a horn relay, and the draw on the Pink wire is less than 250mA; or

✓ **Driving a Relay** if the vehicle lacks a horn relay or if the vehicle circuit current draw exceeds 250mA.

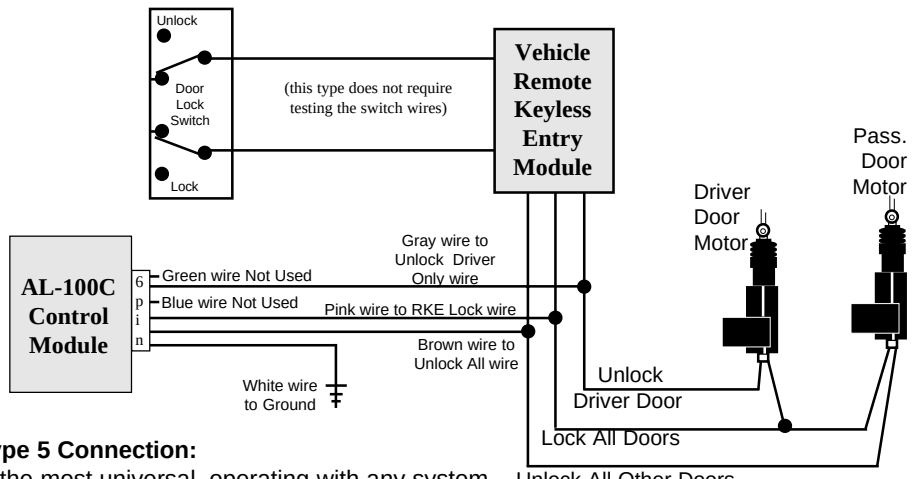
CONNECTION: Direct connection of the Pink wire is to an existing horn relay only. The correct wire is typically found running down the steering column from the horn switch in the steering wheel.

CAUTION! regardless of testing method, avoid the airbag circuit!

There are several testing options:

- Consult a wiring schematic of the vehicle to confirm the presence of a horn relay and switch- to-relay wire color and location.
- Probe the wire for “DC voltage” with a VOM or DMM; the correct wire will show Positive 12 Volts normally and no voltage when the horn is sounded.
- Probe the wire for “ohms” with a VOM or DMM; the correct wire at rest will read approximately 75-80 ohms, the typical relay coil resistance.
- Cut the wire and meter again for “DC amperage” with a VOM or DMM; the correct wire for this type of connection will show .25 to .15 amp when the horn is sounded.
- Another alternative is to disconnect the horns, then operate the horn switch. A clicking sound from the vehicle will indicate the presence of a horn relay.
- The least desirable method is to probe the wire with a standard test light connected to

Type 5 Connection: This connection configuration is a universal type that will interface with any vehicle that remotely unlocks the driver's door first. With this system all of the relays are built in to the keyless entry module. The switch wires are not needed for this type of system. This type is similar to Type 3 Connection with the exception that the pink wire is hooked to the lock motor wire instead of the lock switch wire, therefore the blue pass through wire is not used.



Type 5 Connection:
Is the most universal, operating with any system which remotely unlocks the driver’s door first.

5-Pin Main Harness with Starter Interrupt

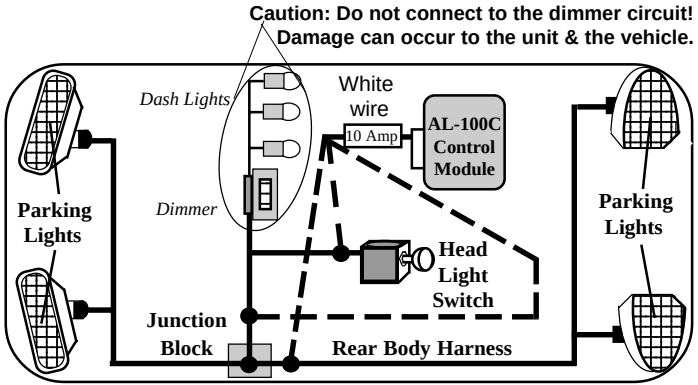
The **Black** wire provides Negative ground for the AL-100C control module; proper connection of this wire is very important.

CONNECTION: Using the correctly sized crimp-on ring terminal, connect the Black wire to the metal frame of the vehicle, preferably using an existing machine-threaded fastener. Make sure that the ring terminal attached to the Black wire has contact with bright, clean metal. If necessary, scrape any paint, rust or grease away from the connection point until the metal is bright and clean. If the control module has an insufficient ground connection, the security system can find partial ground through the wires that are connected to other circuits, and function, but not correctly. As the alarm can partially operate, a bad ground wire connection would not likely be suspected.

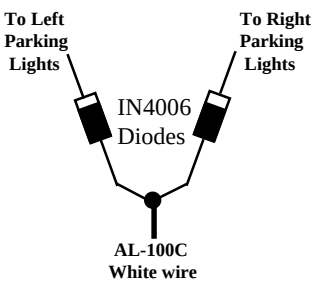
The **Red** wire's function is to supply Constant Positive 12 Volts for the AL-100C's system operation. When 12 Volts is first applied to the Red wire, the system will be activated. The Red wire also supplies 12 Volt Positive to the module's internal relay for flashing the parking lights.

CONNECTION: Connect the Red wire to a Constant Positive 12 Volt source. This source should have Positive 12 Volts with at least a 15 Amp capacity at all times and in all ignition key positions. Connection locations can be at the supply wire at the ignition switch, the supply wire *behind* the fuse block or the fuse/junction block. *Never* just insert the Red wire or any other security system wire behind a fuse. Also, please note that connecting directly to the battery's Positive terminal will expose this connection to failure due to a corrosive environment unless the connection has a protective coating.

wire will show no change in voltage when the dimmer is operated. **Do not connect the White wire to a rheostated (dimmer) circuit!** This will backfeed the parking lights through the rheostat or illumination control module, and possibly cause damage to the vehicle or security system control unit.

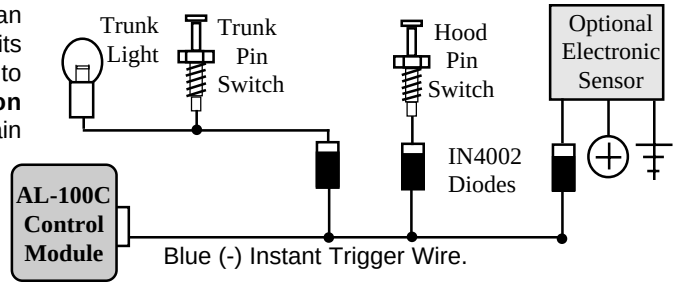


Recommended connection points for the White wire



Many European imports have separate left and right side parking lights. When left & right parking lights are on separate circuits, a pair of 6 to 10 amp diodes may be used to connect the White wire to each parking light side. To configure these diodes, twist both diodes' Anode leads (ends without stripe) together, and connect to the AL-100C's White wire. Extend each diode's Cathode lead (the ends with the stripe), and connect one diode to the left parking light circuit and the other diode to the right parking light circuit.

When wiring more than one of the vehicle's circuits and/or additional circuits to this wire, **diode-isolation** may be required to maintain each circuit's proper operation (diagram). An example would be wiring a hood pin switch and trunk light switch together. Without isolating, the trunk light will illuminate whenever the hood is raised. Also, diode-isolation is necessary when combining sensors together or when adding a sensor in the same circuit as the pin switches.



The **White** wire is a 7 amp Positive 12 Volt output to flash the vehicle's parking lights.

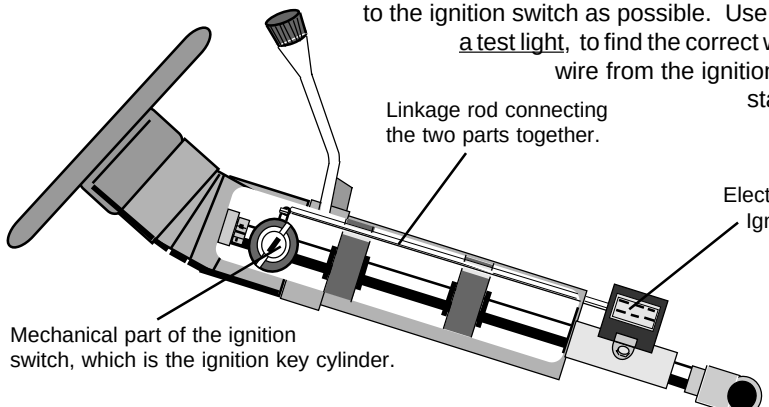
CONNECTION: Connect this wire to the vehicle's Positive 12 Volt parking light circuit, which can usually be found at the following locations: at the headlight switch, at the fuse/junction block, or in the rear body harness in the driver kick panel. Some vehicles, notably Toyota, have a parking light relay which is triggered by a Negative Ground circuit from the headlight switch. The White wire can still be connected directly in these vehicles by finding the parking light circuit after the relay, typically at the Fuse/Junction Block.

The correct wire will show Positive 12 Volts when the headlight switch is in the "Parking Light" and "Head Light" positions. When such a wire is located, also test to ensure that it is non-rheostated: while metering the wire, operate the dash light dimmer control. The correct

Starter Interrupt: The **Red** and **White** wires from the relay socket are for starter interrupt; the **Orange** wire connecting the socket to the control module is a Negative starter interrupt output, which is active whenever the AL-100C is in an armed state.

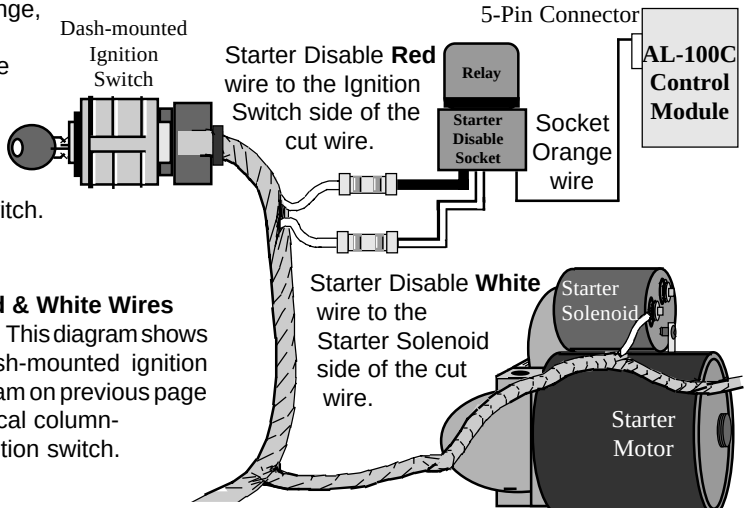
CAUTION! Avoid the airbag circuit! Improper use of a test light can cause deployment of the airbag, which may result in bodily injury! Test lights can also damage on-board computers and associated sensors.

CONNECTION: To interrupt the vehicle's starter circuit, the starter wire must be located, identified and cut. Cutting the vehicle's starter wire will result in two sides- the "ignition switch" side and the "starter solenoid" side. It is recommended that this connection be made as close to the ignition switch as possible. Use a voltmeter, not a test light, to find the correct wire, which is the wire from the ignition switch to the starter solenoid.



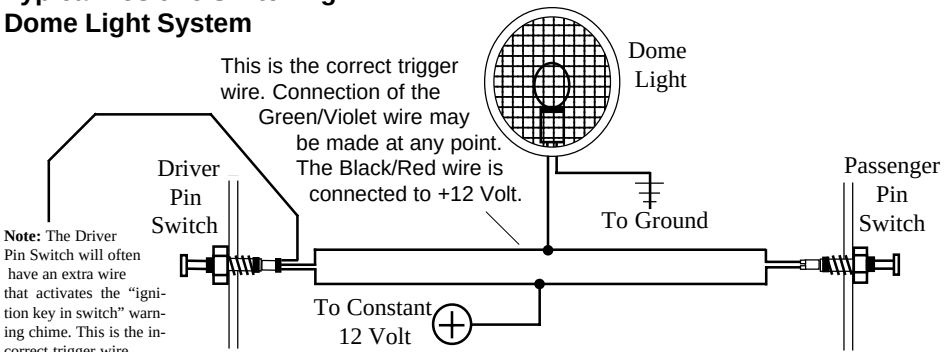
The starter wire will read Positive 12 Volts only when ignition key is in "start" position (cranking the engine). Cut this wire at a suitable location. Confirm that this is the correct wire by turning the ignition switch to the "start" position. The starter should not engage. Connect the starter disable socket's Red wire to the ignition switch side. Connect the starter disable socket's White wire to the starter solenoid side. Be sure that good, solid electrical connections are made as this generally is a high amperage circuit.

The diagram below shows a typical dash-mounted ignition switch, and the Orange, Red and White wire connections, and the diagram on the previous page illustrates the layout of a column-mounted ignition switch.



Orange, Red & White Wires Connection: This diagram shows a typical dash-mounted ignition switch; diagram on previous page shows a typical column-mounted ignition switch.

Typical Positive Switching Dome Light System

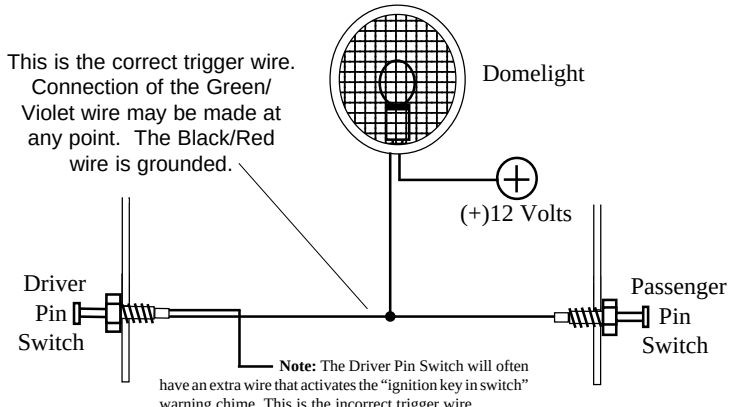


The **Blue** wire is a Negative instant trigger used primarily to detect entry into the hood or trunk area of a vehicle.

CONNECTION: The included pin switches may be installed to provide this trigger circuit; or, if there are existing switches (example: a light in the luggage compartment or a "Trunk Ajar" light in the dash), the Blue wire may be connected directly, provided this is a negative ground switching circuit. An indication of such a circuit is the wire having no voltage present when the hood or trunk is open, and up to 12 volts when the hood or trunk is closed. This wire cannot be used with mercury switch types of hood or trunk lights. If the vehicle is equipped with a usable trunk or hood circuit, locate the proper wire and splice the Blue wire directly to the vehicle's wire.

of the door pin switches; the correct wire in this type of dome light/door jamb pin switch system will have no voltage present and will also show chassis ground when the doors are opened, and up to 12 volts when the doors are closed. Typical connection points within the vehicle may include at a pin switch, or at an interior light.

Typical Negative Switching Domelight System



The **Violet** wire is identical to the Green Door Trigger wire, except that it is an open door input to the control module for vehicles having *Positive 12 volt* door pin switches.

CONNECTION: Connect the Violet wire to a wire in the vehicle which is common to all the door pin switches; the correct wire for this type of dome light/door jamb pin switch system will have 12 volts present when the doors are opened, and chassis ground when the doors are closed. Typical connection points are same as noted for the Green wire.

The **Yellow** wire is an ignition "on" input to the AL-100C.

CONNECTION: This wire supplies Positive 12 Volts to the control module whenever the ignition switch is "on". This connection should be made at the ignition switch harness, to the primary ignition circuit. Primary ignition has 0 Volts when the ignition key is in the "Lock", "Off" and "Accessory" positions; and Positive 12 Volts in the "Run" and "Start" positions. Locate the correct wire at the ignition switch harness and securely splice the Yellow wire to it.

The **Gray** wire is the (+) Trunk Disarm input; a 12 Volt Positive pulse on this wire will disarm the AL-100C.

CONNECTION: Connect this wire to a (+) Positive trunk release wire in the vehicle. While most vehicles have this type of trunk release circuit, if a (-) Negative trunk release circuit only is encountered, a standard automotive relay may be used to reverse the (-) Negative polarity to the needed (+) Positive, and connected to this wire.

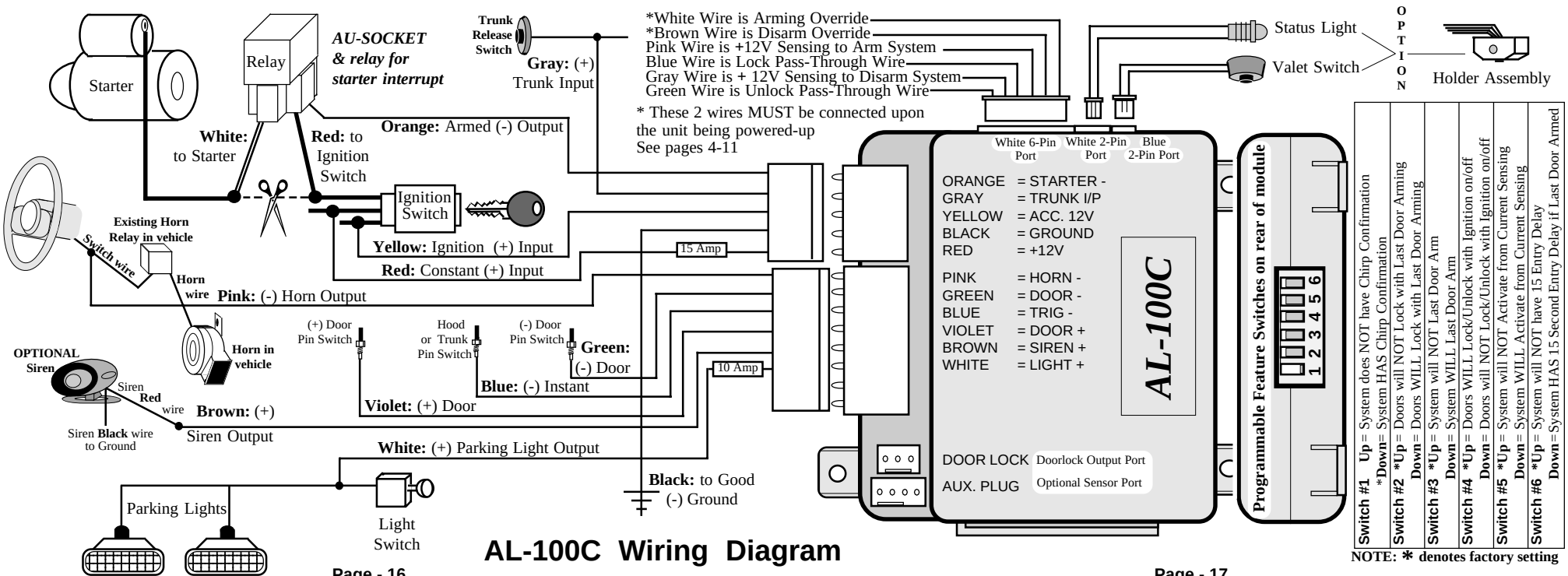
8-Pin, 6-Wire Secondary Harness

The 8-pin 6-wire harness contains "trigger input" wires (two types of door triggers and one instant trigger), a flashing parking light output wire, and two types of audible output wires. Most typically, only one of two door trigger wires needs connection; this depends on whether the vehicle has a (-) Negative or (+) Positive switching interior lighting circuit.

The **Green** wire is an "open door" input to the control module for vehicles having *Negative switching* door pin switches.

CONNECTION: Connect the Green wire to a wire in the vehicle which is common to all

Text continues on page 18



AL-100C Wiring Diagram

Switch #1 **Up** = System does NOT have Chirp Confirmation
***Down** = System HAS Chirp Confirmation
Switch #2 ***Up** = Doors will NOT Lock with Last Door Arming
Down = Doors WILL Lock with Last Door Arming
Switch #3 ***Up** = System will NOT Last Door Arm
Down = System WILL Last Door Arm
Switch #4 ***Up** = Doors WILL Lock/Unlock with Ignition on/off
Down = Doors will NOT Lock/Unlock with Ignition on/off
Switch #5 ***Up** = System will NOT Activate from Current Sensing
Down = System WILL Activate from Current Sensing
Switch #6 ***Up** = System will NOT have 15 Entry Delay
Down = System HAS 15 Second Entry Delay if Last Door Armed

NOTE: * denotes factory setting