LIMITED LIFETIME WARRANTY

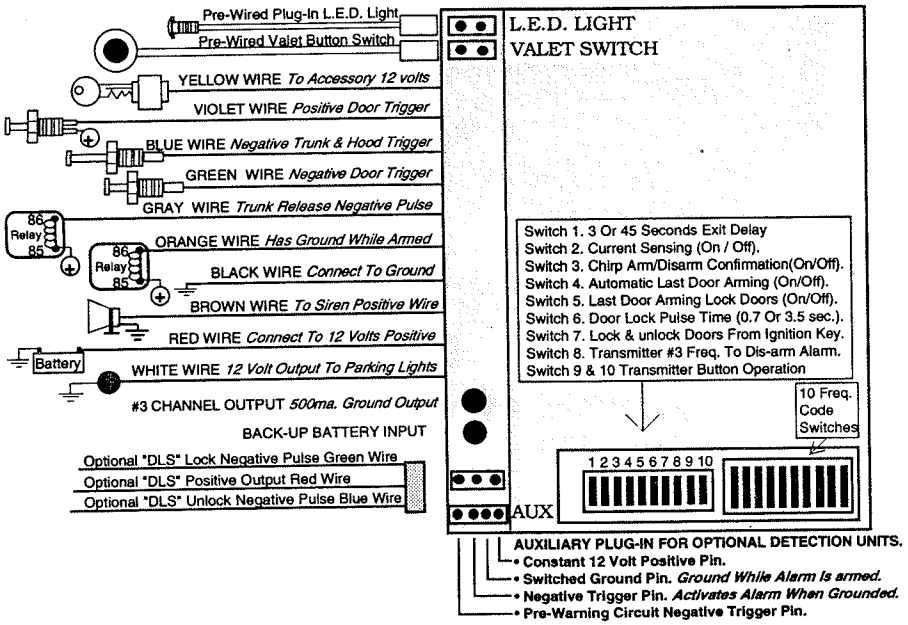
Products manufactured and sold by EXCALIBUR OF AMERICA (the Company), are warranted to be free from defects in materials and workmanship under normal use. If a product sold by the Company proves to be defective, the Company will repair or replace it free of charge within the first year and thereafter all parts to be repaired are free with only a nominal charge for Excalibur's labor and return shipping, during the lifetime of the car in which it was originally installed.

All products for warranty repair must be sent postage pre-paid to Excalibur Of America, P.O. Box 508, Douglasville, Georgia 30133, with bill of sale or other dated proof of purchase. This warranty is non-transferable and does not apply to any product damaged by accident, physical or electrical misuse or abuse, improper installation, alteration, any use contrary to its intended function, unauthorized service, fire, flood, lightning, or other acts of God.

This warranty limits the Company's liability to the repair or replacement of the product. The Company shall not be responsible for removal and/or reinstallation charges, damage to or theft of the vehicle or its contents, or any incidental or consequential damages caused by any failure or alleged failure of the product to function properly. Under No Circumstances Should This Warranty, Or The Product Covered By It, Be Construed As A Guarantee Or Insurance Policy Against Loss. The Company neither assumes nor authorizes any person or organization to make any Warranties or assume any liability in connection with the sale, installation, or use of this product.

LIE700L3

WIRING DIAGRAM



EXCALIBUR®

"WE'VE GOT THE EDGE ON SECURITY"

OWNER'S MANUAL
&
WIRING INSTRUCTIONS

MODEL: AL-700LC & AL-900LCX

CODING RECEIVER BRAIN & TRANSMITTERS

Coding Frequency Of A Second Or Third Auxiliary Receiver To The Transmitter:

1. Open the receiver brain slide window on all receivers. Inside you will see a thin 10-position on/off dip switch and a thick 10-slide 3-position (On-Off-On) dip switch on the printed circuit board . The (+, 0, -) condition of the **THICK** 10-position dip switch selects the frequency coding.
2. Change the second and/or third auxiliary receivers' thick 10-position dip switches to match the (+, 0, -) position of the first receiver already working from transmitter button one.
3. Now all auxiliary receivers should be working from transmitter button one.
4. The on and off condition of the **THIN** 10-slide on/off dip switch #9 & #10 in the receiver (brain unit) will determine which transmitter button will work the auxiliary receiver.

SW#9	SW#10	BUTTON #1	BUTTON #2	BUTTONS 1&2
Off	On	Arm/Disarm	#3 Channel	Trunk
Off	Off	Arm/Disarm	Trunk	#3 Channel
On	Off	Trunk	Arm/Disarm	#3 Channel
On	On	#3 Channel	Arm/Disarm	Trunk

Coding Transmitters To 2nd & 3rd Receivers To Match The First Transmitter:

1. Take out the printed circuit board from all the transmitters.
2. On the back of the printed circuit boards there are tracer lines marked + (positive) 1 through 10 and - (negative) 1 through 10.
3. The cut & uncut tracers negative and positive 1 through 10 in the extra transmitters must be changed to match the negative and positive cut & uncut tracers 1 through 10 in the original transmitter.
4. Each of the 10 codes have a + and a - connection. One or both of the tracers must be cut or you will have a dead short when the battery is installed.
5. Now all transmitters are coded to be the same as the original transmitter, so button 1, 2, and 1&2 together will work the same corresponding receivers.

Arming Alarm From Transmitter

The first step in learning how to operate your alarm is to become familiar with three principle components: The transmitter, the Status LED light and the hidden Valet Button Switch.

The transmitter has two buttons, labeled "1" and "2". Typically, button #1 is used as the Arm/Disarm & Panic button, while button #2 and buttons 1 & 2 Pushed together may be used to Arm/Disarm a second or third vehicle or engage an *optional* Auxiliary Remote Module *(Example: Garage door opener or Car starting equipment)* .

For simplicity, these instructions assume that the system is being used with only one vehicle, and therefore button #1 is the Arm/Disarm & Panic button and buttons 1&2 pushed together for 2 seconds operates trunk release if utilized and automatically disarms alarm if pre-selected to do so from switch #8 inside the alarm brain unit.

Active Arming From Transmitter: *If Ignition Key Is "Off", The Alarm Can Always Be Armed From Transmitter.* To arm the alarm after you exit the vehicle and close all doors simply Press Transmitter Button One Once: Instantly the lights will flash once, the doors will lock, (if optional adaptor was installed), and in 1/2 second the siren will chirp once and L.E.D. light will flash fast continuously, confirming alarm is armed.

Note: Pressing button one a second time the instant you see the lights come on will arm alarm without the siren chirp confirmation.

Note About Arming By-Pass: If a protected entry circuit is in a shorted condition when arming alarm, (Example: trunk or hood is still open or any shock sensor circuit is triggered) only that circuit will be by-passed until that circuit is fixed or closed. The arming confirmation will change from one siren chirp and one light flash to 3 siren chirps and 3 light flashes to advise you that alarm is armed with hood, trunk or auxiliary circuit still open.

Note: To prevent accidental disarming, the alarm will automatically re-arm & lock doors 90 seconds after each time alarm has been disarmed until the ignition key is turned on. With automatic last door arming turned on, if a door is open the 90 second re-arming countdown will stop and alarm will re-arm 30 seconds after the last door is closed.

Arming Alarm Automatically

Automatic Last Door Arming: This Feature (shown on page 12) must be selected "by turning "On" or Off" Dip Switch #4 inside the alarm brain unit. Last Door Arming Automatically begins AFTER the ignition key has been turned off and the last door is closed. But as long as the door remains open, the alarm will not arm, "pausing", waiting for that last point of entry to be closed, allowing convenient, unhurried passenger exit and trunk access. After the last door is closed, alarm will give one siren chirp & flash lights confirming all points of entry are closed. A 30 second countdown begins. During this countdown, if a point of entry is re-opened, the countdown stops & resets to start the countdown over again once the point of entry is closed. When the 30 second countdown concludes the alarm will become armed and doors will lock if #5 dip switch is turned on (shown on page 13). *You can still arm the alarm manually from the transmitter.* This "Automatic Last Door Arming" offers a high level of security, since you do not have to remember to turn the alarm system on each time you depart from your vehicle. In addition, in most states, passive arming may entitle you to an insurance discount.

Automatic Last Door Arming Confirmation: *If turned on, last door arming will work all the time in case you forget to arm the alarm from the transmitter.*

With ignition key "off" and after the last door closes, lights will flash once, siren will chirp once and L.E.D light will be flashing fast, confirming that the alarm will become armed in 30 seconds. Doors will lock if optional adaptor was installed & dip switch #5 inside alarm brain unit is turned "on" *(shown on page 13)*. Now lights flash once, siren chirps once, and the L.E.D. light flashes slower, confirming alarm is armed.

Note About Arming By-Pass: Does not work with last door arming feature. This by-pass feature only works when arming from transmitter because all protected entries must be closed for automatic arming countdown to start.

Note: To prevent alarm from automatically arming while vehicle is being re-fueled you should either: put alarm in valet mode, keep your door open or turn on your dome light switch so alarm thinks your door is still open. We don't recommend leaving your ignition key turned on.

2 Ways To Disarm Alarm From Transmitter

hile alarm is armed the LED light will be flashing. In this mode, any unauthorized entry will stantly trip the alarm. Once tripped, siren will sound, *doors will relock (if utilized and if thief locked door to gain entry)* and lights will flash (if utilized) for 60 seconds (unless you disarmed ner with transmitter or valet on/off switch). If all protected entries are secure at the end of 60 conds, the alarm will stop and re-arm automatically to detect another entry. If there is a protected try still open at the end of 60 seconds the alarm will stop in 3 minutes, then re-arm automatically ile ignoring only that open circuit. When that circuit is reset or closed, then protection will tomatically begin on that circuit.

To Disarm Alarm Press Transmitter Button "One" Once, The lights will come on instantly for seconds *lighting the way to your car.* In 1/4 of a second the doors will unlock (if optional relays installed). In 1/2 second the siren will chirp twice and the L.E.D. light will be off, confirming alarm now disarmed. **Note:** Pressing button one a second time the instant you see the lights come on will arm alarm without siren chirp confirmation. **Note:** Pressing button one a second time during the o chirp confirmation will put alarm in a "off" condition, preventing the alarm from automatically ning in 90 seconds. (To confirm temporary valet mode, the lights will flash off instantly (and for ery 5 seconds thereafter) during the normal 60 second "lights on" countdown.)

If you are unsure of the armed/disarmed condition of the alarm, press transmitter buttons One & Two" Together For 2 Seconds with Switch #8 turned off inside the alarm brain. (This tomatically operates trunk release if utilized). Now alarm is in the disarmed mode.

OTE: If the alarm was triggered while you were away, the disarm confirmation changes to 4 siren irps, 4 light flashes *and the lights stay on for 60 seconds, lighting the way to your car.* The L.E.D. ht will indicate what zone triggered the alarm by flashing two or three times then pausing 1 second til ignition key is turned "on", thus clearing the LED light memory circuit.

ote: To prevent accidental disarming, the alarm will automatically re-arm & lock doors 90 seconds er each time alarm has been disarmed until the ignition key is turned on. With automatic last door ning on, if a door is open, the 90 second re-arming countdown will stop and alarm will re-arm 30 conds after the last door is closed.

Disarming Alarm If Transmitter Is Lost

In the event the transmitter is lost, damaged, or its batteries become exhausted, the hidden Valet on/off switch may be used to disarm the alarm system, as follows:

STEP 1. Enter the passenger compartment (of course, the alarm will be triggered the instant the door is opened).

STEP 2. Turn on your ignition key .

STEP 3. Within 10 seconds push Valet button switch & the alarm will disarm instantly. The alarm will remain in the valet condition. *Remember: the Valet switch will only disarm the alarm if the ignition key is "on" and the valet button is pushed within 10 seconds.*

STEP 4. To turn off Valet, push valet switch once with ignition key turned on. The alarm will be taken out of the valet condition. This is confirmed by the LED light changing from constant On to Off.

Keeping Alarm Off During Vehicle Servicing

During extended stopovers for service stations, maintenance, valet parking, washing, etc.:

To Prevent Alarm From Arming: With the ignition key turned on, simply press the hidden Valet switch "on" for two seconds or until you hear the flashing light relay click twice or you see the lights flash twice . *The alarm will hold memory to stay Disarmed even if the ignition key is turned off.*

NOTE: The LED light will be on constant, confirming alarm is in the valet condition.

NOTE: If alarm was triggered, you must first turn on ignition key and then press valet button within 10 seconds to turn on valet.

To Allow Alarm To Arm Again: Turn off Valet by pushing valet switch once with ignition key turned on. The alarm will be taken out of the valet condition. This is confirmed by your lights flashing twice and the LED light changing from constant On to Off.

Panic Alarm From Transmitter

n the event of attack or assault, or any time you feel threatened or in need of assistance, you an use the Transmitter to trip the alarm as a possible means of getting help or diverting the ttacker's attention.

'ressing transmitter button "One" for 3 seconds will lock the doors, turn on the alarm siren nd flash lights for 60 seconds then shutdown and reset alarm in the armed condition. If larm is in the valet mode, it will reset to the disarm condition. You can turn panic off ıanually, rather than wait 60 seconds for it to reset itself. Simply press Transmitter button One" again for only 1 second. The panic will turn off and the alarm will be put in the disrm mode, unlocking the doors & keeping the lights on for 60 seconds *(lighting the way to our car)* or until ignition key is turned on.

'his full-time Panic feature can be turned on at any time while the alarm is Armed or)isarmed or even in the valet mode.

This device complies with FCC Rules part 15. Operation is subject to the following two conditions (1) This device may not cause harmful interference and (2) This device must accept any interference that may be received, including interference that may cause undesired operation.

L.E.D. Status Light, Siren & Light Confirmation

This alarm comes with a Red status LED light to tell you 6 conditions the alarm can be in.

1) Off = Alarm is Disarmed.
2) On Constant = Alarm is in Valet mode (with ignition key turned On or Off).
3) Flashing = Alarm is armed.
4) Fast Flashing = 30 second Passive arming exit Countdown time delay.
5) Flash-3x & Pause = Alarm was triggered while you were away by the door or current sensing. The LED light will hold this memory after you disarm alarm until you turn on the ignition key.
6) Flash-2x & Pause = Alarm was triggered while you were away by the blue instant trigger wire for the hood, trunk or shock sensors.The LED light will hold this memory after you disarm alarm until you turn on the ignition key.

Siren Chirp & Light Flashing Confirmation

One Siren Chirp & One Light Flash: *Alarm is armed.*
Two Siren Chirps & Lights stay on 60 seconds: *Alarm has disarmed.*
Three Siren Chirps & Three Light Flashes: *Alarm is arming with a protected circuit still open and that circuit will be bypassed.*
Four Siren Chirps & Four Light Flashes & Lights stay on 60 seconds: *Alarm was just disarmed and alarm had been triggered on while you were away.*

Automatic Functions

1. **ARM/DISARM WITHOUT CHIRP** (patent-pending): When arming or disarming alarm, if you press the transmitter button a second time when you see the lights come on or hear the doors lock or unlock, the alarm's normal chirp confirmation is eliminated.
2. **LIGHTS ON 60 SECONDS AFTER DISARMING ALARM:** After disarming the alarm, lights will come on for 60 seconds, lighting the way to your vehicle. Lights turn off instantly if alarm is re-armed or 10 seconds after door is opened or ignition key is turned on. **Note:** If alarm was triggered while you were away, the lights will flash 4 times then stay on for 60 seconds.
3. **TEMPORARY VALET** (patent-pending): To put alarm in a temporary "off" condition, press button one a second time during the two-chirp disarming confirmation sound. Alarm is now disarmed until you re-arm by transmitter or (if in automatic arming mode) by opening and closing the last door, which will turn off temporary valet and re-arm alarm in 30 seconds. **Note:** To confirm temporary valet mode, the lights will flash off instantly (and for every 5 seconds thereafter) during the normal 60 seconds "lights on" countdown.
4. **DOORS LOCK INSTANTLY WHEN ALARM IS TRIGGERED** (patent-pending): If a thief unlocked your door and gained entry, the doors will lock instantly after the last door is closed. When the siren comes on, the first reaction for anyone is to close the door quickly. Now the thief can't re-open the door unless they unlock the door again. All other alarms leave your doors unlocked, but this alarm re-locks your doors, even when the alarm automatically shuts off and re-arms.
5. **CHANGING POLICE SIREN SOUNDS:** Changes 12 times in 60 seconds. Each police sound changes every 5 seconds and in 60 seconds the alarm will turn off and re-arm to detect another entry.

Automatic Functions

6. **90-SECOND AUTOMATIC RE-ARMING:** To prevent accidental disarming, the alarm will automatically re-arm & lock doors 90 seconds after each time alarm has been disarmed until the ignition key is turned on or a door is opened. With automatic last door arming turned on, if door remains open, the 90-second countdown will stop. Then, 30 seconds after the last door is closed, the alarm will re-arm.
7. **POWER-MAZE™:** This patent-pending feature can really save your vehicle if your car battery or alarm power wire is cut, and your vehicle ignition is hot wired. The alarm will trigger on instantly as if the power wire was never cut. The alarm will continue to operate in the armed mode as long as the ignition stays hot wired.
8. **WHEN 12 VOLTS IS FIRST APPLIED, ALARM INSTANTLY SOUNDS:** If car battery is disconnected then re-connected, most alarms become disarmed. This alarm instantly triggers "on", sounds siren, flashes lights for 60 seconds and prevents car from starting (with optional relay), then re-arms.
9. **ARMING CIRCUIT BY-PASS:** If a protected entry circuit is open when arming alarm, only that open circuit will be by-passed until that circuit is closed. The arming confirmation will change to 3 siren chirps and 3 light flashes to advise you that alarm is armed with hood, trunk or auxiliary circuit still open.
   NOTE: Arming by-pass circuit does not work with "last door arming"selected. Arming by-pass circuit only work when using transmitter to arm the alarm.
10. **DEFECTIVE CIRCUIT BY-PASS:** When alarm is triggered and any circuit or triggering device is automatically found defective, the alarm will shut down in 3 minutes, and re-arm, by-passing only the defective circuit until it is fixed.

Programmable Functions

These features turn "On" or "Off" from a 10-slide on/off dip switch inside the alarm brain.

SWITCH #1. (3 or 45 second arming delay):

Switch turned "On" = 45 seconds after arming confirmation chirp, alarm will be armed.

Switch turned "Off" = 3 seconds after arming confirmation chirp, alarm will be armed.

SWITCH #2. (12 VOLT CURRENT SENSING): When alarm is armed, current sensing can detect a positive current draw from the vehicle battery. (Example: Dome light comes on when door is opened or brake lights come on when you step on the brake pedal). This will trigger "On" alarm.

Note: Vehicles with door handle touch sensor that turns on dome lights, requires connection of Green or Violet wire to the door circuit and *requires this current sensing feature to be turned off.*

SWITCH #3. (SIREN CHIRP CONFIRMATION FOR ARM & DISARM):

With this feature turned "On" the alarm's Armed or Disarmed condition is confirmed by the siren chirp. If the transmitter button is pressed a second time the instant you see the lights come on or hear the door locks operate, the siren chirp confirmation will be eliminated.

With this feature turned "Off" the chirp is always eliminated. Confirmation from Lights only.

SWITCH #4. (AUTOMATIC LAST DOOR ARMING & RE-ARMING):

Note: All doors must have proper connection of alarm blue, green or violet wire to activate the last door arming timer. Refer to pages 17, 18 & 19 for proper connection.

With Last Door Arming Turned "On" the alarm will arm automatically 30 seconds after the last door is closed. Alarm may also be armed immediately from the transmitter.

With Last Door Arming Turned "OFF" the alarm can only be armed from the transmitter.

SWITCH #5. (DOORS LOCK FROM LAST DOOR ARMING):

With dip switch turned "On" (If switch #4 above is turned on) the doors will lock 30 seconds after the last door is closed, at the same time the alarm becomes armed.

With dip switch turned "Off" only arming from the transmitter will automatically lock the doors.

Programmable Functions

SWITCH #6. (DOOR LOCK PULSE TIME): Changes alarm's door lock pulse timing.

With dip switch turned "On" the alarm will have a 0.7 second pulse time to lock or unlock your vehicle's automatic door locking system. (This is the time required by most vehicles).

With dip switch turned "Off" the alarm will have a 2.8 second pulse time to lock or unlock your vehicle's automatic door locking system. (Most often used for vacuum pump-type systems).

SWITCH #7. (DOORS LOCK 1 SECOND AFTER IGNITION KEY IS TURNED ON & DOORS UNLOCK INSTANTLY AFTER IGNITION KEY IS TURNED OFF):

With dip switch turned "off" your doors will lock 1 second after the ignition key is turned "On" if all doors are closed. If any door is open while ignition key is being turned on, then doors will not lock from this feature. (This will prevent accidentally locking yourself out of vehicle). After the ignition key is turned "Off" the doors will instantly unlock. If any door is open while ignition key is being turned off, the other doors will not unlock automatically from this feature. (This will prevent unlocking doors with children in the vehicle).

SWITCH #8. (TRANSMITTER TO DISARM ALARM FROM BUTTON ONE & TWO PUSHED TOGETHER):

With dip switch turned "Off" transmitter buttons one & two pushed together will activate trunk release and, at the same time, *disarm alarm, unlock doors and turn on lights for 60 seconds.*

With dip switch turned "On" only trunk release will work. (Trunk release will always work.)

SWITCH #9 & 10 SELECT WHICH TRANSMITTER BUTTONS OPERATE THE ALARM FUNCTIONS:

SW#9	SW#10	BUTTON #1	BUTTON #2	BUTTONS 1&2
Off	On	Arm/Disarm	#3 Channel	Trunk
Off	Off	Arm/Disarm	Trunk	#3 Channel
On	Off	Trunk	Arm/Disarm	#3 Channel
On	On	#3 Channel	Arm/Disarm	Trunk

RED & BLACK WIRE CONNECTION *power wires*

RED WIRE (12 volts positive input): FUNCTION ONE: To supply constant 12v positive for alarm operation. FUNCTION TWO: After alarm is armed, if a dome light comes on the current draw would be sensed by the red wire to trigger alarm "on" instantly *& lock doors.* FUNCTION THREE: When 12 volts is first applied to red wire the alarm will trigger "on" instantly to sound siren, lock doors, flash lights and prevent car starting for 60 seconds then will continue to operate in the armed mode. FUNCTION FOUR: To supply 12 volts, 7 amps to the built-in relay contacts for flashing lights from the alarm white wire. CONNECTION: May be made directly to car battery, but for more dependable current sensing the fuse block marked "BAT" is recommended. Connection location must have 12v, 15amp capacity all the time.

BLACK WIRE (Ground input): FUNCTION: To supply ground for alarm operation.

CONNECTION: Secure this wire to the metal grounded frame of vehicle or directly to the battery ground cable 6" or more away from battery. Make sure to scrape away all dirt and grease to get a good ground connection.

Note: If you have a bad ground connection, the alarm can find partial ground through other wires connected, but alarm will not function correctly making you think you have a bad alarm. The alarm can "half-way" work, so you would never suspect a badly grounded wire. In some cases the alarm could arm & disarm but not function correctly.

Note: When ground is first applied to black wire the alarm will trigger "on" instantly.

Note: ***Thin black wire connected to alarm brain*** is the antenna wire. Just stretch this wire out, don't connect this wire to anything or it will kill your transmitting range.

YELLOW WIRE CONNECTION *accessory 12 volts*

YELLOW WIRE (Accessory +12 volt input):

FUNCTION ONE: To tell the alarm whether you are in or out of the car by reading which position the ignition key is in (Acc, On or Off).

With ignition key "off" (No +12 volts to yellow wire):

A) The alarm can be armed.

B) Valet/Override button will not work to disarm alarm or change its memory.

C) In valet mode transmitter can still operate Door locks, Trunk Release and Panic.

D) The doors unlock the moment the ignition key is turned off, if all doors are closed.

E) Trunk release will work.

With ignition key "on" (Accessory +12 volts to yellow wire):

A) The alarm cannot become armed.

B) If alarm is triggered or just in the armed condition, the valet/override button can work after ignition key turns on +12 volts to the yellow wire and the valet button is pressed within 10 seconds of ignition key being turned on.

C) The valet button can be turned on or off when +12 volts is turned on from the ignition key and will hold memory of its selection when ignition key is turned off.

D) Trunk release will work only while a door is open with ignition key "on". This prevents the trunk from being opened while driving.

E) Turning on ignition key clears the L.E.D. light memory of flashing when alarm was triggered while you were away.

CONNECTION: Connect yellow wire to ignition side of fuse block to a location that:

A) When ignition key is "Off" there is no positive 12 volts to yellow wire.

B) When ignition key is "On" there is positive 12 volts 3 amp positive to yellow wire.

BROWN WIRE CONNECTION *siren + wire*

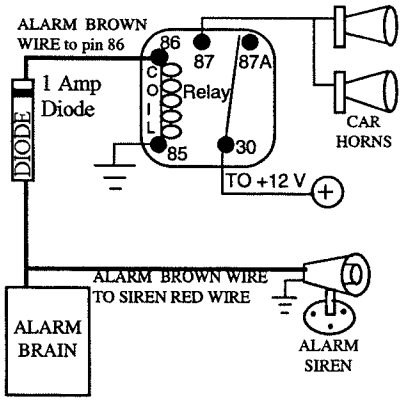
BROWN WIRE (siren 12 volt 1-amp positive output): FUNCTION ONE: To provide a constant 12 volt, 1-amp positive output directly to the electronic siren supplied in this package.FUNCTION TWO: To provide a constant 12 volt, 1-amp positive output directly to an optional relay coil, to allow additional devices (car horn, air horns, sirens or pagers) to come on when alarm is sounding.CONNECTION ONE: Connect alarm brown wire directly to electronic siren red positive wire. Only when alarm is triggered "on", or has chirp confirmation, will the brown wire have 12 volts output to siren. **NOTE:** If brown wire touches ground directly without a load it damages circuit.

CONNECTION TWO OPTIONAL :

Connect alarm brown wire to the positive side of optional relay coil pin 86. Connect relay coil pin 85 to ground. Only when alarm is triggered "on" or arm/disarm confirmation chirps will brown wire work relay coil.

NOTE: If brown wire touches ground directly (without a one amp load) it can damage alarm circuit.

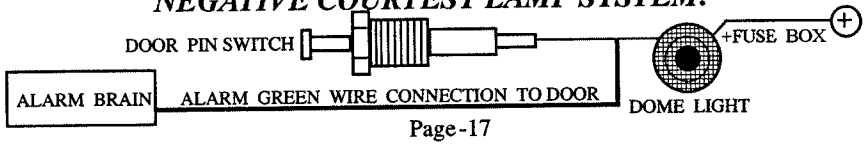
NOTE: Do not connect alarm brown wire to the siren and relay output at the same time. If one or two relays are used then connect siren red positive wire to relay contact pin 87.



GREEN WIRE CONNECTION *negative door trigger*

GREEN WIRE (Door negative instant trigger wire with G.M. de-bounce circuit): FUNCTION ONE: When green wire becomes grounded after alarm has armed, this will trigger "on" alarm. If green wire is grounded at the time alarm becomes armed from transmitter, the circuit by-pass will keep this green wire circuit unprotected until circuit becomes ungrounded. FUNCTION TWO: To begin last door arming. After ignition key is turned off, the exit delay countdown will not begin until the green wire circuit changes from being grounded to ungrounded. (Means any door opened, then last door closed). **Note:** If any door on this circuit is opened or re-opened within the 30 second exit delay time, it will reset and stop the timing as long as door is open. Once last door closes, countdown starts and 30 seconds later alarm automatically arms itself. FUNCTION THREE: When alarm is triggered by green wire the L.E.D. light will start flashing (Red 3 times & pause) until the ignition key is turned "on". CONNECTION: If factory dome light pin switches are the grounding type **(Example: dome light won't work with pin switch in your hand),** locate the common wire that connects all door pin switches and connect the green wire there. **Note:** If dome light stays on for a time after the door is closed the alarm bypass circuit will allow alarm to arm from transmitter instantly and will start protecting this green wire circuit when the dome lights turn off. **Note:** In passive arming mode, alarm arms 30 seconds after the dome light turns off.

NEGATIVE COURTESY LAMP SYSTEM:



BROWN WIRE CONNECTION *siren + wire*

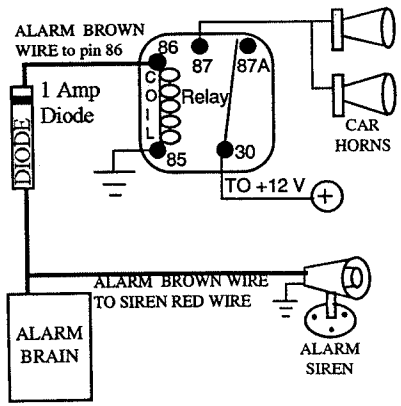
BROWN WIRE (siren 12 volt 1-amp positive output): FUNCTION ONE: To provide a constant 12 volt, 1-amp positive output directly to the electronic siren supplied in this package.FUNCTION TWO: To provide a constant 12 volt, 1-amp positive output directly to an optional relay coil, to allow additional devices (car horn, air horns, sirens or pagers) to come on when alarm is sounding.CONNECTION ONE: Connect alarm brown wire directly to electronic siren red positive wire. Only when alarm is triggered "on", or has chirp confirmation, will the brown wire have 12 volts output to siren. **NOTE:** If brown wire touches ground directly without a load it damages circuit.

CONNECTION TWO OPTIONAL :

Connect alarm brown wire to the positive side of optional relay coil pin 86. Connect relay coil pin 85 to ground. Only when alarm is triggered "on" or arm/disarm confirmation chirps will brown wire work relay coil.

NOTE: If brown wire touches ground directly (without a one amp load) it can damage alarm circuit.

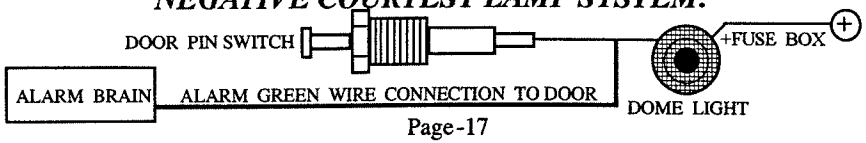
NOTE: Do not connect alarm brown wire to the siren and relay output at the same time. If one or two relays are used then connect siren red positive wire to relay contact pin 87.



GREEN WIRE CONNECTION *negative door trigger*

GREEN WIRE (Door negative instant trigger wire with G.M. de-bounce circuit): FUNCTION ONE: When green wire becomes grounded after alarm has armed, this will trigger "on" alarm. If green wire is grounded at the time alarm becomes armed from transmitter, the circuit by-pass will keep this green wire circuit unprotected until circuit becomes ungrounded. FUNCTION TWO: To begin last door arming. After ignition key is turned off, the exit delay countdown will not begin until the green wire circuit changes from being grounded to ungrounded. (Means any door opened, then last door closed). **Note:** If any door on this circuit is opened or re-opened within the 30 second exit delay time, it will reset and stop the timing as long as door is open. Once last door closes, countdown starts and 30 seconds later alarm automatically arms itself. FUNCTION THREE: When alarm is triggered by green wire the L.E.D. light will start flashing (Red 3 times & pause) until the ignition key is turned "on". CONNECTION: If factory dome light pin switches are the grounding type **(Example: dome light won't work with pin switch in your hand),** locate the common wire that connects all door pin switches and connect the green wire there. **Note:** If dome light stays on for a time after the door is closed the alarm bypass circuit will allow alarm to arm from transmitter instantly and will start protecting this green wire circuit when the dome lights turn off. **Note:** In passive arming mode, alarm arms 30 seconds after the dome light turns off.

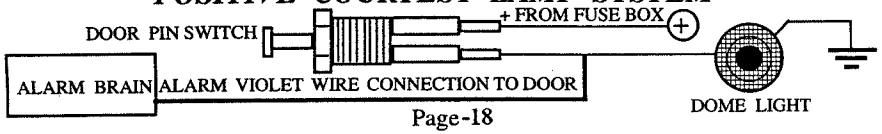
NEGATIVE COURTESY LAMP SYSTEM:



VIOLET WIRE CONNECTION *positive door trigger*

VIOLET WIRE (Door positive instant trigger wire): FUNCTION ONE: When violet wire touches 12 volts positive after alarm has armed, this will trigger "on" alarm. FUNCTION TWO: To begin last door arming. After ignition key is turned off, the exit delay countdown will not begin until the violet wire circuit changes from being 12 volts positive to an open circuit. (Example: any door open then last door closed). **Note:** If any door on this circuit is opened or re-opened within the 30 second exit timing, it will reset and stop the timing as long as door is open. Once last door closes, countdown starts and 30 seconds later alarm automatically arms itself. FUNCTION THREE: If dome light stays on for a time after the door is closed the arming by-pass circuit will allow alarm to arm from transmitter. When the dome light turns off the alarm will start protecting that circuit. In automatic passive arming mode when dome light turns off, the alarm will automatically arm itself in 30 seconds. FUNCTION FOUR: If violet wire is touching 12 volts positive at the time alarm becomes armed, the circuit by-pass will keep the violet wire unprotected until it becomes an open circuit to be protected. FUNCTION FIVE: When alarm is triggered by violet wire the L.E.D. light will start flashing (Red 3 times & pause) until ignition key is turned On. CONNECTION: If factory dome light pin switches are the positive type **(Example: dome light will work with pin switch in your hand),** locate the common wire that connects all the door pin switches and connect the violet wire there.

POSITIVE COURTESY LAMP SYSTEM



BLUE WIRE CONNECTION *negative hood trigger*

BLUE WIRE (Hood, trunk and accessory negative instant trigger wire):

FUNCTION ONE: When blue wire becomes grounded after alarm has armed, this will trigger "on" alarm.

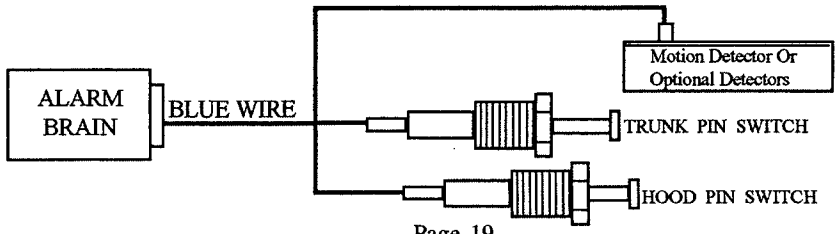
FUNCTION TWO: If blue wire is grounded at the time alarm becomes armed, the siren arming confirmation will change to 3 siren chirps to confirm that the built-in circuit by-pass is on while this blue wire circuit is unprotected (until it is ungrounded).

FUNCTION THREE: If the blue wire becomes grounded during "last door arming" exit delay, the countdown timing will stop and reset. When blue wire becomes ungrounded the alarm will arm automatically in 30 seconds.

Note: If blue wire is grounded, the last door arming will not start until ungrounded.

FUNCTION FOUR: When alarm is triggered by blue wire, the L.E.D. light will flash (Red 2 times & pause) until the ignition key is turned "On" to clear the memory.

CONNECTION: Connect to both hood and trunk self grounding pin-switches for instant protection. *Motion detectors and other detection devices can be connected to the blue wire also.*



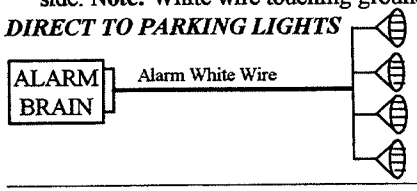
WHITE WIRE CONNECTION *flashing light output*

WHITE WIRE (From Built-in Flashing Light Relay, 12 volt 7amp Output):

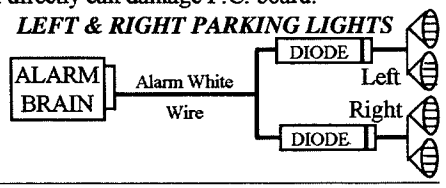
FUNCTION ONE: To send 12 volt positive 7 amp. pulse from a built-in relay to flash vehicle parking lights for arm/disarm confirmation and when alarm is sounding from panic mode or any triggered condition. FUNCTION TWO: After disarming the alarm the lights will come on for 60 seconds or until alarm is re-armed or 10 seconds after door is opened or ignition key is turned on.

CONNECTION: Direct to parking lights positive wire. When left & right parking lights are on separate circuits, 10 amp diodes or relays must be used to connect each parking light side. **Note:** White wire touching ground directly can damage P.C. board.

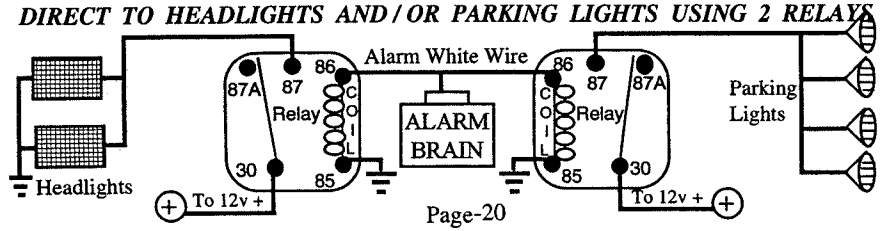
DIRECT TO PARKING LIGHTS



LEFT & RIGHT PARKING LIGHTS



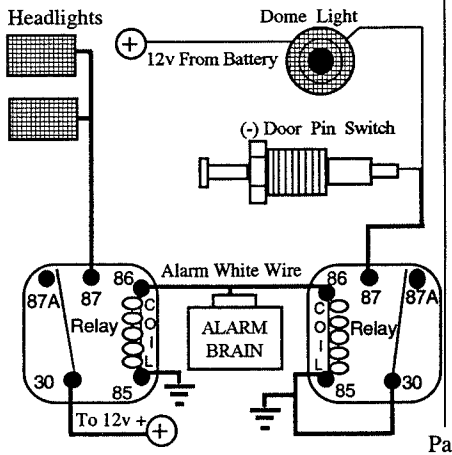
DIRECT TO HEADLIGHTS AND / OR PARKING LIGHTS USING 2 RELAYS



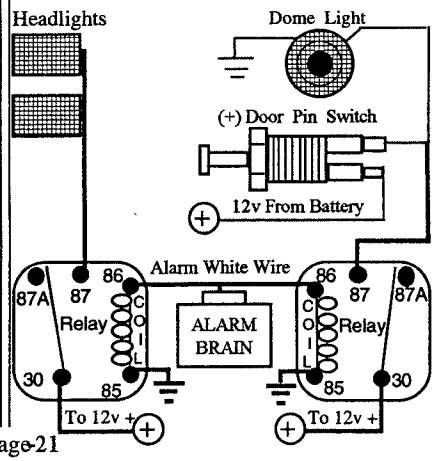
WHITE WIRE CONNECTION *flashing light output*

WHITE WIRE CON'T: Connecting white wire to vehicle's dome light system. There are Negative and Positive types of dome light systems. When lights stay on for 60 seconds after disarming alarm, all circuits will draw their maximum amps, which is greater than the alarm brain can handle on its own, so external relays must be connected. Also, using external relays will stop any electrical feedback, so your dome lights don't come on when your parking lights or head lights are turned on for night-time driving.

NEGATIVE DOME LIGHT SYSTEM



POSITIVE DOME LIGHT SYSTEM



ORANGE WIRE CONNECTION *starter interrupt*

ORANGE WIRE (500ma Negative Output For Optional Starter Interrupt Relay):

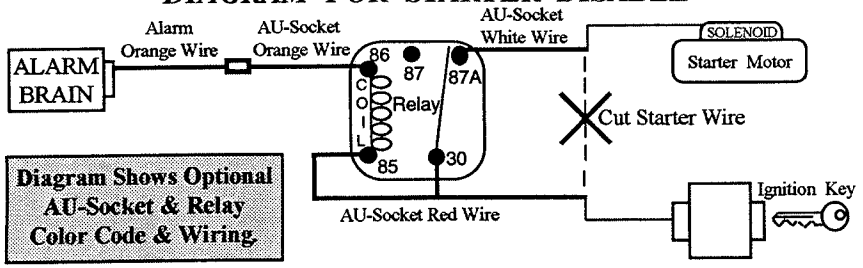
FUNCTION ONE: To provide a constant 500ma ground output for a relay coil only while the alarm is in the armed condition or triggered "on". If model AU-socket is used, the relay will have current draw on battery only while attempting to start the vehicles.

CONNECTION: For Starter Disable: Connect orange wire to the negative side of optional relay coil pin #86. The wire from ignition key to starter solenoid will read 12 volts only when ignition key is in start position (cranking the vehicle). Cut this wire at a suitable location. Ignition key side of this cut wire to pin #85 and #30 of relay. Starter solenoid side of this cut wire connect to pin #87a of relay.

Note: Only while cranking vehicle will a small drain be on battery from the use of this relay.

Note: If this wire touches 12 volts positive directly or has more than a 500ma ground load, it will damage this circuit.

DIAGRAM FOR STARTER DISABLE



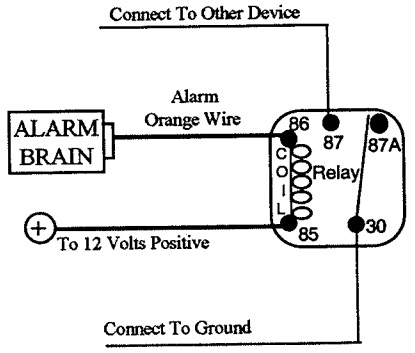
ORANGE WIRE CONNECTION *starter interrupt*

ORANGE WIRE CON'T:

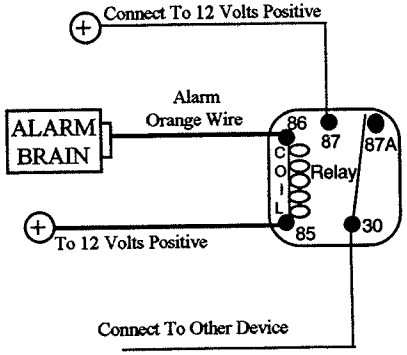
FUNCTION TWO: To have a relay supply 12 volts positive or ground to other detection devices when alarm is armed.

Note: Relay in function two will have current draw on battery only while alarm is armed.

SUPPLY GROUND TO OTHER DEVICES



SUPPLY POSITIVE TO OTHER DEVICES



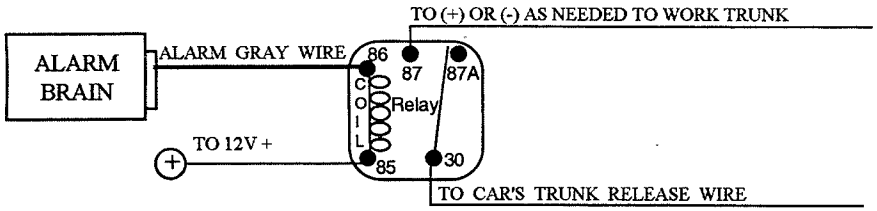
GRAY WIRE CONNECTION *trunk release relay*

GRAY WIRE (Negative Pulse Output For Trunk Release Relay):

FUNCTION: Pressing transmitter buttons 1&2 for two seconds will cause this gray wire to have 500 ma ground pulse for 1 second or for as long as you transmit. Also, alarm will automatically *unlock the doors & disarm the alarm,* allowing the lights to come on, lighting the way to your vehicle for 60 seconds or until 10 seconds after a door is opened, ignition key is turned on or alarm is re-armed.

Note: Trunk release can be operated anytime with ignition key off. To operate while ignition key is "on" you must have a door open at the same time. This prevents the trunk from being opened while driving.

CONNECTION: Connect gray wire to negative side of optional relay pin (86). Connect 12v to relay pin (85). Connect pins (87,87a & 30) as needed to operate your equipment.

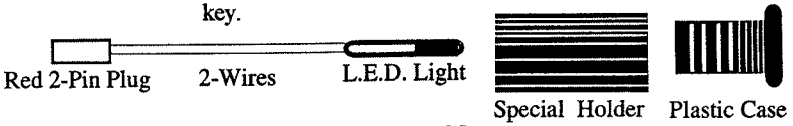


Red L.E.D. Status Light

THIS 6 FUNCTION RED L.E.D. STATUS INDICATOR LIGHT comes with a special holder that allows you to mount the L.E.D. light anywhere without having to make a hole in the dash. The L.E.D. can pull apart from the plastic case so you can mount the case in a hole and then plug the L.E.D. light back inside from the back side of case. This way you don't need to put the plug & wires through the hole before mounting.

CONNECTION: The Red 2-pin plug at the end of the L.E.D. wires must be plugged into the alarm brain's red socket at the location marked L.E.D. light.

1) Off = Alarm is Dis-armed.
2) On Constant = Alarm is in Valet mode with ignition key turned On or Off.
3) Flashing = Alarm is Armed.
4) Fast Flashing = 30 second Passive arming exit Countdown time delay.
5) Flash-3x & Pause = Alarm was triggered while you were away by the door or by current sensing. The LED light will hold this memory after you disarm alarm, until you turn "On" the ignition key.
6) Flash-2x & Pause = Alarm was triggered while you were away by the blue instant trigger wire for the hood, trunk or shock sensors.The LED light will hold this memory after you disarm alarm, until you turn "On" the ignition key.



VALET SWITCH *hidden on/off button switch*

VALET / OVERRIDE SWITCH (To Disarm Alarm):

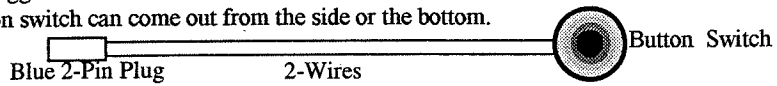
A) FUNCTION ONE: To Prevent Alarm From Arming During Extended Stopovers For Servicing, Washing, Valet Parking, Etc. **NOTE:** Transmitter can still operate doorlocks, trunk release and R.F. panic in valet mode.

To Turn On Valet: With ignition key "on", push valet button switch "on" for 1 second and release. The red L.E.D. light will now stay on (constant) and lights will flash twice, confirming you are in the valet mode and preventing the alarm from becoming armed. **Note:** If the button switch is pressed for more than 3 seconds, the valet will turn off when you stop pressing the button switch. Thus allowing toggle switch operation. A thief can't turn off alarm because your ignition key must be "on" to operate the valet.

To Turn Off Valet: With ignition key "on", push valet button switch "on". This turns off valet and is confirmed by the red LED turning off. Alarm can now be armed.

B) FUNCTION TWO: Override Feature To Disarm Alarm If Transmitter Is Lost: Enter vehicle This will trigger on siren and lights. Now turn ignition key "on", and push the valet button switch **within 10 seconds of turning on the ignition key**. This will instantly disarm the alarm and put the alarm in the valet condition. To turn off valet, press valet button switch once more to allow alarm to be armed.

CONNECTION: The Blue 2-pin plug at the end of the on/off Valet button switch wires must be plugged in to the alarms brain's blue socket, at the location marked VALET. Wire from button switch can come out from the side or the bottom.



AUXILIARY *plug-in detecting devices*

AUXILIARY: (3 or 4-Pin Plug-in For Accessory Detection Devices):

FUNCTION ONE: Allows easy positive, negative and trigger connection with quick disconnect ability for other detection devices. Anytime the detection device triggeres this circuit the alarm will **instantly lock the doors** or wait until doors are closed, instantly sound the siren and flash the lights for 60 seconds.

FUNCTION TWO: Pre-trigger warning, when activated the doors will lock instantly, flash lights once and chirp siren 3 times. This will not trigger on the alarm, only warn that this vehicle has an alarm system. **Note:** Current sensing must be turned off or when the lights flash this will trigger on the alarm.Note: This circuit can only be activated once every 10 seconds and after 3 activations this circuit only will turn off for 1 hour.

CONNECTION: A 3-pin plug is already plugged into the alarm brain. Pull this plug off and slide out the metal pins inside the plug. Attach each of your wires to these pins and then slide the pins back into the plug. Most of our optional detection devices come with this plug pre-wired, so all you have to do is take off the plug the alarm came with and plug in the new pre-wired plug your detection device came with.

1) INSIDE PIN = 12 VOLTS POSITIVE: Has 12 volts all the time. If this pin touches ground directly (without a load) it will damage this circuit.
2) SECOND PIN = GROUND: Only while alarm is armed is this pin grounded.
3) THIRD PIN = TRIGGER: With alarm armed, if this pin becomes grounded the alarm will trigger "on". This is connected to the blue wire trigger circuit through a diode inside alarm.
4) OUTSIDE PIN = Pre-Trigger Warning when momentarily touches ground.

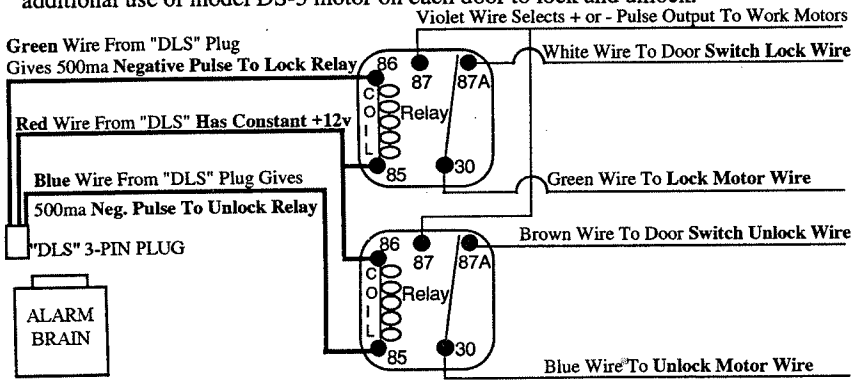
DOOR LOCK CIRCUIT *output information*

DOOR LOCK & UNLOCK OUTPUTS: (Negative Outputs To Work Relays Or "DLS"):

FUNCTION: Gives 500 ma. negative pulse to work relays that will operate your door lock system when alarm is armed or disarmed, lock doors when alarm is first triggered on by thief, lock when panic alarm & unlock when panic is turned off, unlock when trunk release is activated, lock & unlock doors while in Valet mode.

CONNECTION: A 3-pin connection can be made on the side of alarm brain that is marked "door lock". One outside pin gives negative output to lock & the other outside pin to unlock. The center pin is + 12 volts all the time.

OPTIONAL MODEL DLS: This "DLS" Door Lock Socket with optional relays just plugs into alarm. This option saves time by pre-wiring relays & the wires that interface with your door lock system. This "DLS" can be used in vehicles that are equipped with factory power door locks. The "DLS" will not make manual door locks automatic without the additional use of model DS-3 motor on each door to lock and unlock.

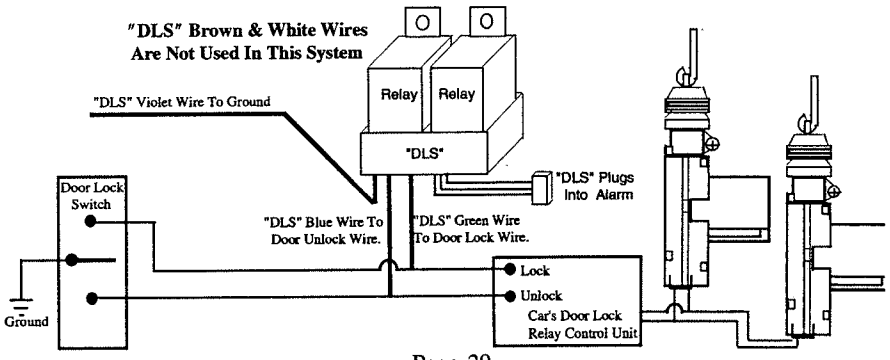


DOOR LOCK CIRCUIT *system "A"*

(SYSTEM - A) 3-WIRE GROUNDING TYPE SYSTEM:

- One wire is grounded all the time. *If More Than One Wire Is Normally Grounded Without Working The Door Lock Switch,* ***Use SYSTEM "C" On Page 31.***
- One wire is grounded Only when switch is moved to the lock position.
- One wire is grounded Only when switch is moved to the unlock position.

CONNECTION: The diagram below shows how to connect the optional model "DLS" to your 3-wire GROUNDING type door lock system. If you wire relays directly without the optional model "DLS" then you can use the "DLS" wiring diagram on page 28 to see how the relay coils are wired to the alarm brain outputs & how the wires from the relay contacts are wired to interface with your door lock system.

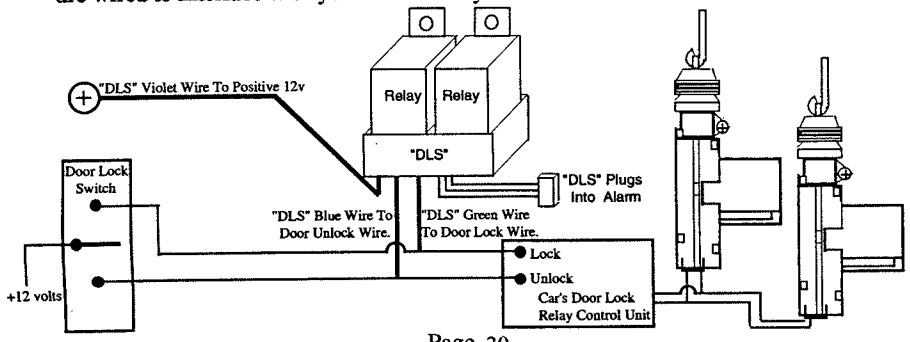


DOOR LOCK CIRCUIT *system "B"*

(S Y S T E M - B) 3-WIRE POSITIVE 12 VOLT TYPE SYSTEM:

- *If Any Wire Is Normally Grounded Without Working The Door Lock Switch,* ***Use SYSTEM "C" On Page 31.***
- One wire has positive 12 volts all the time.
- One wire has positive 12 volts Only when switch is moved to the lock position.
- One wire has positive 12 volts Only when switch is moved to the unlock position.

CONNECTION: The diagram below shows how to connect the optional model "DLS" to your 3-wire POSITIVE type door lock system. If you wire relays directly without the optional model "DLS" then you can use the "DLS" wiring diagram on page 28 to see how the relay coils are wired to the alarm brain outputs & how the wires from the relay contacts are wired to interface with your door lock system.

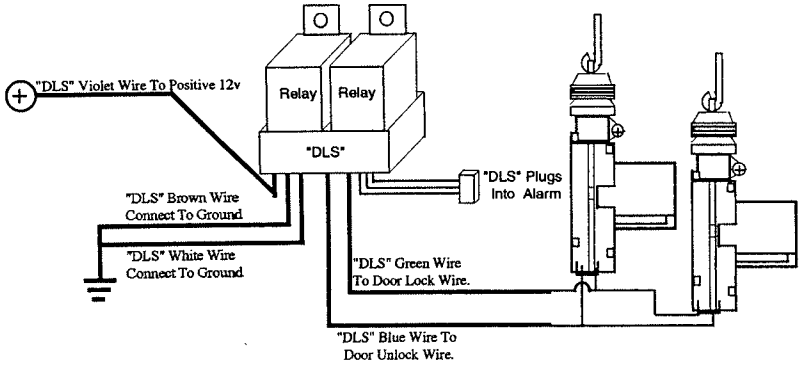


DOOR LOCK CIRCUIT *DS-3 motor*

SPECIAL DOOR LOCKING SYSTEMS THAT USE OPTIONAL DS-3 MOTOR:

If the driver's door key unlocks & locks all the doors but the passenger's door key leaves the driver's door unchanged, Then you need to install model DS-3 motor to the driver's door to operate from the alarm.

CONNECTION: The diagram below shows how to connect the optional model "DLS" to your (Model DS-3) 5-wire Reverse Polarity Rest at Ground type door lock motor. If you wire relays directly without the optional model "DLS" then you can use the "DLS" wiring diagram on page 28 to see how the relay coils are wired to the alarm brain outputs & how the wires from the relay contacts are wired to interface with your door lock system.

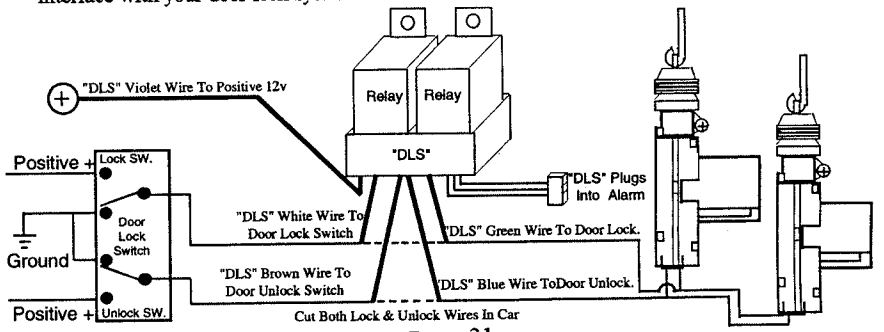


DOOR LOCK CIRCUIT *system " C"*

(S Y S T E M - C) 4 or 5-WIRE REVERSE POLARITY TYPE SYSTEM:

- One wire has +12v all the time. All Other Wires Are Normally Grounded Without Working The Switch.
- One or two wires are grounded all the time.
- One wire is grounded normally but switches to +12v when the switch is moved to the lock position.
- One wire is grounded normally but switches to +12v when the switch is moved to the unlock position.

CONNECTION: The diagram below shows how to connect the optional model "DLS" to your 5-wire Reverse Polarity Rest at Ground type door lock system. If you wire relays directly without the optional model "DLS" then you can use the "DLS" wiring diagram on page 28 to see how the relay coils are wired to the alarm brain outputs & how the wires from the relay contacts are wired to interface with your door lock system.



DOOR LOCK CIRCUIT *trouble shooting*

SYMPTOM A : Relays on "DLS" don't click when you arm or disarm alarm.
PROBABLE CAUSE : A)Bad connection between alarm and "DLS".
B)Alarm doorlock positive or negative pulse output is blown.
SOLUTION :Replace "DLS", relays or alarm.

SYMPTOM B :The doors lock and unlock from "DLS" out of sequence with arming and disarming of alarm.
PROBABLE CAUSE :You wired lock and unlock wires in reverse.
SOLUTION :Reverse the green and blue "DLS" wires on the plug. Or just re-plug "DLS" plug backwards.

SYMPTOM C : If doors lock and unlock from door switch correctly, but when alarm is armed or disarmed the "DLS" Relays smoke or blow fuses.
PROBABLE CAUSE : A) You're not using the correct doorlock wires.
B) For 3 or 4-wire doorlock systems the positive & ground wires are backwards.
C) For 5-wire systems, lock wires or unlock wires are backwards
D) For 5-wire systems, The lock and unlock wires rest at nothing.
SOLUTION : A) Find the correct door lock wires.
B) Reverse positive or negative connection of violet wire.
C) For five wire systems, reverse "DLS" green & white wires, if smokes or blows fuses when alarm is armed to lock doors.Reverse "DLS" blue & brown wires if smokes or blows fuses when disarming alarm to unlock doors.

TROUBLE SHOOTING

SYMPTOM	*PROBABLE CAUSE*	*SOLUTION*
Alarm arms with ignition key "on" Alarm doesn't arm Valet Override Non-operational Last door arming not working	Yellow wire is not connected correctly	Yellow wire must be connected so when: A) With ignition key "on" there "is" 12 volts to the alarm yellow wire B) With ignition key "off" there is "no" 12 volts to alarm yellow wire
Last door arming not working	The blue, violet, green wire is not connected to door pin switches correctly.	Connect the correct wire to the door pin switches
Alarm still won't last door arm	Was not programmed in the receiver module	Must have slide switch #4 in the "on" position from the 10P slide switches
Alarm doesn't trigger "on" from doors or hood, trunk, or accessory detection devices.	A blue, violet or green wire is still in triggered condition	Disconnect all trigger wires and re-test one wire at a time
Alarm won't re-arm	Valet is "on"	With ignition key "on" turn "off" valet switch

LIMITED LIFETIME WARRANTY

Products manufactured and sold by EXCALIBUR OF AMERICA (the Company), are warranted to be free from defects in materials and workmanship under normal use. If a product sold by the Company proves to be defective, the Company will repair or replace it free of charge within the first year and thereafter all parts to be repaired are free with only a nominal charge for Excalibur's labor and return shipping, during the lifetime of the car in which it was originally installed.

All products for warranty repair must be sent postage pre-paid to Excalibur Of America, P.O. Box 508, Douglasville, Georgia 30133, with bill of sale or other dated proof of purchase. This warranty is non-transferable and does not apply to any product damaged by accident, physical or electrical misuse or abuse, improper installation, alteration, any use contrary to its intended function, unauthorized service, fire, flood, lightning, or other acts of God.

This warranty limits the Company's liability to the repair or replacement of the product. The Company shall not be responsible for removal and/or reinstallation charges, damage to or theft of the vehicle or its contents, or any incidental or consequential damages caused by any failure or alleged failure of the product to function properly. Under No Circumstances Should This Warranty, Or The Product Covered By It, Be Construed As A Guarantee Or Insurance Policy Against Loss. The Company neither assumes nor authorizes any person or organization to make any Warranties or assume any liability in connection with the sale, installation, or use of this product.

LIE700L3

SOLDER HOLE PADS

THIRD CHANNEL OUTPUT: (Activated From Transmitter Button # 2):

FUNCTION: When transmitter button 2 is pushed, the alarm will give a 500ma ground pulse for 1 second or for as long as you are transmitting.

CONNECTION: Solder a wire to the solder hole pad on the printed circuit board (at the location marked on the top of alarm cabinet "#3 channel") which will connect to the item you wish to operate. **Note:** Because less than 1 percent of our users will require this feature we did not put this output on the quick disconnect plug.

BACK-UP BATTERY: :

FUNCTION: To supply 9 to12 volts to the alarm system while the vehicle's battery is connected. **Note:** we have installed a protection circuit so that your back-up battery will not supply power to your entire vehicle & to the alarm's flashing light circuit.

CONNECTION: Connect your optional back-up battery positive wire to the alarm solder pad (at the location marked on the top of alarm cabinet "back-up battery"). Connect your back-up battery negative wire to the vehicle ground wire. **Note:** You can use any number of dry cell batteries to connect to this circuit. (Example: 10 double "A" batteries connected in series or two 9v batteries connected in parallel.).

EXCALIBUR®

"WE'VE GOT THE EDGE ON SECURITY"

OWNER'S MANUAL
&
WIRING INSTRUCTIONS

MODEL: AL-700LC & AL-900LCX