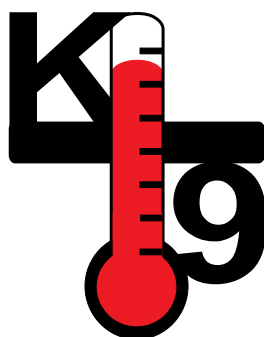




K9Caller™ Version 1

Installation Manual

Rev 5



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Table of Contents

Page 1 Cover

Page 2 Table of Contents

Page 3 Getting Started

Page 4 Wire Connection Example; Connections A8-A7

Page 5 Wire Connections A6-A2

Page 6 Wire Connection A1 In Park Sense

Page 7 Wire Connections M16-M9

Page 8 Wire Connections M8-M2

Page 9 Wire Connection M1

Page 10 Wire Connections L5-L1

Page 11 Door Lock Diagrams

Page 12 Wire Connections i6-i1

Page 13 Ignition Harness Diagram

Page 14 & 15 Connections at a Glance

Page 16 Side Connectors; iData, Prog, Temp Probe, Antenna, Sensor

Page 17 Temperature Probe

Page 18 Two Way Antenna

Page 19 Program Mode, extra remote

Page 20-21 Programming Mode & Branches/Features Chart

Page 22-23 Programmable Branches/Features Explained

Page 24-25 Programmable Branches/Features Explained

Page 26-27 Optional Door Pop Hardware

Getting Started

Please read this manual thoroughly.

The K9Caller is an integrated canine temperature protection system, remote controlled alarm and keyless entry system, and remote starter in one package. The patented and patent pending features of this unit are not available anywhere else. Please refer to the operation manual for specific features.

Before you get started there is some information that you should be aware of to plan for a proper installation. Most vehicle today have an anti-theft feature built into the ignition key that provides a coded signal which must be present in conjunction with turning the key cylinder to start the vehicle. Additionally, some vehicle are keyless and require only a transponder fob and push button to start the vehicle. In either of these cases an addition module is required to allow for the proper operation of the system. Some of the modules can affect the way that an installation is planned as they require different wires and or circuits to be connected. You should always obtain a vehicle wire locator and compatibility chart for any vehicle before the installation. You should also review the installation instructions for any additional module or accessory before you start the install. If your installation facility does not already have access to this information you can contact our support at support@K9Safety.com and we will supply the information to you. We will need to know the make, model and year of the vehicle with your request.

Good installations always start with planning. Knowing the features and options that the end user is expecting will help in planning how to install and what programmable functions need to be changed from default. For a list of options see page 19.

Also, planning where connections will be made, how wires will be routed, and where modules will be mounted helps to alleviate problems from arising during or after the installation. Make sure that connections are secure and module are properly mounted so as not to obstruct the operation of other vehicle components. It is recommended that you contact our support team if this is the first time that you are installing one of our systems. We can provide you with information that can reduce installation time and avoid unnecessary trouble shooting.

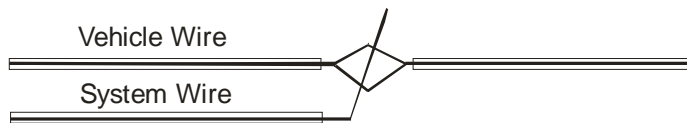
Standard Package Contents

Main Control Unit, 2-Way Antenna, LCD Remote (2-Way), LCD Leather Case, AAA Battery, 1-Way Remote with Batter, Compact Siren, Combo Status & On/Off Button, Hood Switch, Magnetic Park Safety Contact Set, Ignition Harness, Door Lock Harness, Main Harness, Auxiliary Harness, Temperature Probe, Starter Disable/AntiGrind Relay, Installation & Operators Instructions.

Wire Connection Technique

When connecting system wires to vehicle wires it is recommended that you use the wire wrap technique.

Strip away 1/2" of the insulation on the vehicle wire. Evenly part the strands of the vehicle wire. Strip away 1" of insulation at the end of the system wire. Thread the un-insulated portion of the system wire between the parted strand of the vehicle wire. Wrap the threaded un-insulated system wire around the un-insulated vehicle wire. Wrap electrical tape to cover the un-insulated system and vehicle wire connection.



Find an accessible location inside the vehicle cabin to mount the MCU keeping in mind how you will run the cables for the ignition harness and for the programmable temperature display (CTD). Planning your installation will ultimately save time and help to avoid service returns in the future.

A1-A8 Wire Connections Described

A8 Orange/White, Disarmed Output (-) 500ma. This wire can be used to trigger a relay to close when the alarm function is disarmed.

A7 White/Red, Aux 1 Output (-) 500mA. This output can be programmed to trigger when remote button 5 is pressed followed by button 3. The output will trigger while the button is held/ for a period of time/ or latch on/off depending on the selection made in programming Branch 18. It can also be programmed to output when the vehicle has been started by a Hot temperature trigger which can be useful to automatically turn on an air conditioner system or fan(s).

A1-A8 Wire Connections Described, Continued

A6 Black/Yellow, Aux 2 Output (-) 500mA. This output can be programmed to trigger when remote button 5 is pressed followed by button 4. The output will trigger while the button is held/ for a period of time/ or latch on/off depending on the selection made in programming Branch 17.

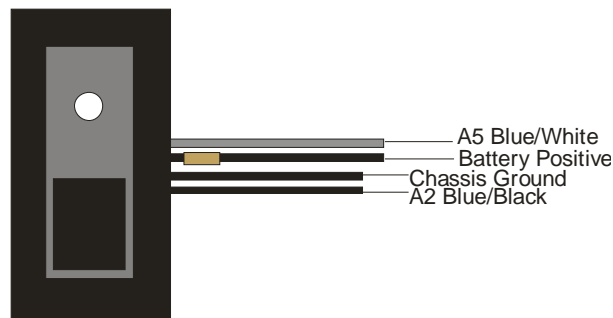
A5 Blue/White, K9Function On/Off Status LED (-12v) Output. This wire connects to the negative side (Gray wire) of the Status LED located in the combo LED/Pushbutton harness. The Black wire which runs along side the Gray wire on the combo harness is the positive wire for the LED. The positive side must be connected to a positive battery constant source. Note, there is a 1.5K resistor inline on this wire to lower the voltage to the LED See Fig below.

A4 Blue/Yellow, Glow Plug (-/+) Input. This wire connects to the wait to start indicator lamp output on a diesel powered vehicle. This input is selectable between positive or negative sensing. The factory default is set to negative. The settings are changed by changing jumper settings on the board and in Program Branch 33. Note, the polarity can be changed between negative and positive depending on the jumper setting. See Fig J1 on page 9.

A3 Blue, Trunk Trigger Input (-). This wire connects to a trunk trigger input, such as a pin switch, to detect forced entry and trigger the alarm function.

A2 Blue/Black, K9Function On/Off & Alert Delay Input (-). This wire connects to the first black wire of the push button switch located in the combo LED/Pushbutton harness. The second Black wire which runs along side the first black wire on the combo harness is the negative input wire for the switch. The negative side must be connected to a chassis ground constant source. See Fig below

Combo LED/Switch



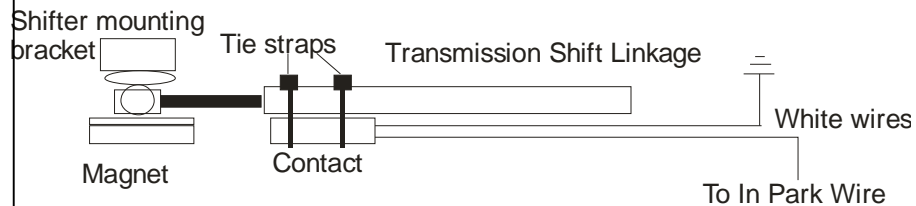
A1-A8 Wire Connections Described, Continued

A1 Green/White, Transmission In-Park Input (-)

Connect this wire to a circuit that provides a negative signal when the vehicle is in park. This can be done by connecting to a factory park safety circuit or by using the provided SFT contact set. This wire must be connected for the system to work properly.

Determine if the vehicle is factory equipped with an "in park" output. To work properly it must supply a 12 volt negative signal with a 500mA headroom capacity. This means that in addition to the load of the circuits it is designed to supply this signal must be capable of supporting an additional 500mA. NOTE, if you are uncertain about the capacity or functionality of a factory "in park" circuit DO NOT TIE INTO IT. On many newer vehicles the side effects will not be realized right away and can cause undesired operation. It is wiser and easier to use the park safety contact set that is supplied in the kit then to track down problems later!

Under the driver's side dash, or at the steering column, find the automatic transmission shift mechanism or strut. Find a mounting location in the park position in which the safety contact and magnet can be located 1/4in apart, tip to tip. Remove the cover to expose the adhesive backing on the magnet & stick in place. Use silicon or epoxy glue to form a permanent hold and let it set until tacked. Use tie straps to attach the contact to the shift stabilizing strut. With a multi-meter attached to the white wires of the contact, you should read a closed circuit when the vehicle is in park. If your meter does not read a closed circuit, gradually move the contact closer to the magnet unit you have a closed circuit. Now move the transmission from the park to the reverse position, the meter should now show an open circuit. If the circuit is still closed, gradually move the contact away from the magnet until the circuit shows open. If you have made this adjustment test again that the circuit shows closed when in park. Once properly aligned you can permanently fix the contact in place with silicone or epoxy glue. Connect one of the white contact wires to chassis ground.



M1-M16 Wire Connections Described

M16 Brown/White, Horn Honk Output (-) 500mA. This wire provides a negative flashing output to honk the vehicles horn. This output is used as an audible high temperature alert.

M15 Blue/Orange, Auto Start Activation Output (-) 500mA {Bypass Module & Ign2}. This wire provides a negative output during the auto start and auto run of the system. It can be connected to the activation input of a factory bypass module or used to activated addition ignition relays.

M14 Green/White, Brake Pedal Input (+). This wire connects to the positive output side of the brake pedal switch. The switch is typically located directly above the brake pedal and the wire show positive when the brake pedal is pressed and goes away when the pedal is released.

M13 Black/Gray, Tachometer or Fuel Injector Input (AC 3-6v). This wire connects to the negative (signal) side of an ignition coil or injector wire. The tach or injector wire typically output between 3-6 volts AC. Note, the unit is shipped with Smart Start as the factory default. Using tach sense is more reliable and is the recommended setting. For this wire to be used you must change Branch 30 to option 2 and program the tach signal within Branch 31 option 1.

M12 Red, +12 Battery Positive Input (+). Connect this wire to a constant 12V battery positive source capable of 15Amps.

M11 Black, Chassis Ground Input (-). Connect this wire to a good chassis ground. A factory chassis ground lug is preferred.

M10 Pink, Factory Alarm Disarm/Ignition Output (-) 500mA. This wire can be used to disarm a factory alarm system to allow remote start operation or to energize an additional relay to supply an ignition output. See Branch 16 for programming.

M9 White, Parking Light Output (+/-) selectable. Connect this wire to the vehicle parking light controller or wire. This output is selectable between positive or negative sensing. The factory default is set to positive. Note, the polarity can be changed between negative and positive depending on the jumper setting. See Fig J1 on page 9.

M1-M16 Wire Connections Described, Continued

M8 White/Black, Hood Trigger Input (-) {shutdown}. Connect this wire to either a factory hood pin switch that provides a negative signal when the hood is open or to the provided hood switch. This connection is vital to prevent the system from auto starting the vehicle while the is being serviced. **Failure to properly connect this wire can result in an accidental start and possibly injury.** A magnetic contact or mercury switch can also be used.

M7 Black/White, Hot Temperature Alert Output (-) 500mA. This wire provides a steady negative output while the temperature is at or above the alert threshold and the alert condition is triggered. It can be used to activate an optional window drop module, trigger an optional SMS messenger or to energize a relay that can operate additional fans.

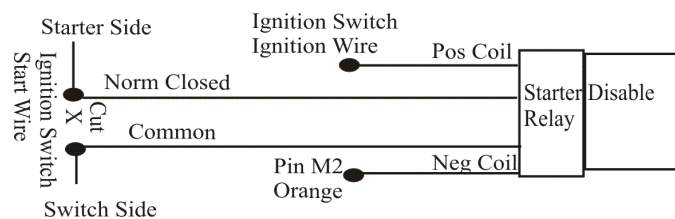
M6 Brown, Siren Output (+) 3A. Connect this wire to the positive side (red wire) of the siren. It supplies a positive output when the alarm function is triggered and when the alarm function is armed or disarmed if selected. See Branch 21 and remote operation.

M5 Violet, Door Trigger Input (+). Connect this wire to a factory door pin switch or dome light trigger that shows positive when the doors are open and no positive when the doors are closed. Traditionally a Ford type door trigger.

M4 Green, Door Trigger Input (-). Connect this wire to a factory door pin switch or dome light trigger that shows negative when the doors are open and no negative when the doors are closed. Traditionally a GM type door trigger.

M3 White/Violet, Window Up Output (-) 500mA. This wire will supply a 60 second negative output upon deactivation of a high temperature alert or a momentary negative output upon deactivation of an auto start/run cycle. This wire can be used to trigger a window roll up module.

M2 Orange, Alarm Armed Output (-) 500mA. This wire supplies a negative output while the alarm system is armed. It is used to trigger the included starter disable/starter anti-grind relay. This relay will disable the vehicle from being started when the security alarm is active and will also prevent the starter from grinding if the vehicle is “auto-started” and the user turns the ignition key to the start position.

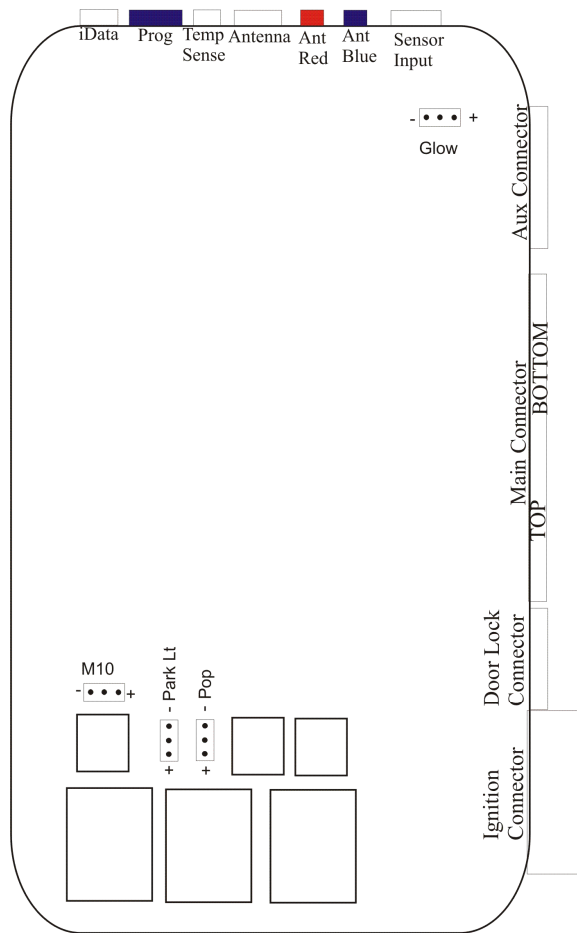


M1-M16 Wire Connections Described, Continued

M1 Gray, Door Pop Trunk Pop (+/-) 7A Selectable. This wire provides a selectable positive/negative 7Amp relay output that can be programmed for either door pop output or trunk pop output. When selected as a door pop, this wire will send the selected output only when the vehicle is in park and the K9 system is activated when triggered by the appropriate remote signal button 3 or by an external trigger (See Branch 12). Connect this wire to the green pop solenoid wire to pull the solenoid and ground the blue or to the blue wire to push and ground the green. When selected as a trunk pop, this wire will send the selected output only when triggered by the appropriate remote signal button 3. See program Branch 10 and Note, the polarity can be changed between negative and positive depending on the jumper setting. See Fig J1 below. Also, if both door pop and trunk pop are desired then use either aux1 or aux2 for trunk pop.

Please see pages 22-23 of this manual for instruction on installing the optional door pop hardware.

Fig J1 : Jumper Selections On Board



L1-L5 Door Lock Relays

The system is equipped with built in door lock relays that enable you to connect to a wide variety of factory and aftermarket power door lock systems. On many new vehicles the power lock system can be controlled by connecting to the vehicle data bus through a 3rd party data module. Ask for a vehicle specific wire locator for more details.

L5 Green, Door Lock Output (Relay N.O.). This is the lock output wire which is connected to the vehicle wire that causes the vehicle door locks to lock. There are several different types of door lock systems available on automobiles today. Review the type specified for the current vehicle and connect accordingly.

L4 White, Door Lock Normally Closed (Relay N.C.). This wire is used when connecting to

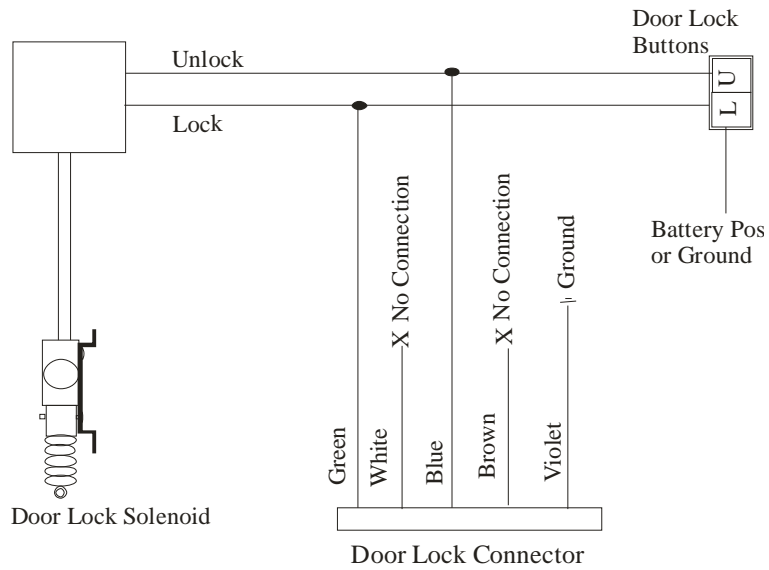
L3 Blue, Unlock Output (Relay N.O.). This is the unlock output wire which is connected to the vehicle wire that causes the vehicle door locks to unlock. There are several different types of door lock systems available on automobiles today. Review the type specified for the current vehicle and connect accordingly.

L2 Brown, Unlock Normally Closed (Relay N.C).

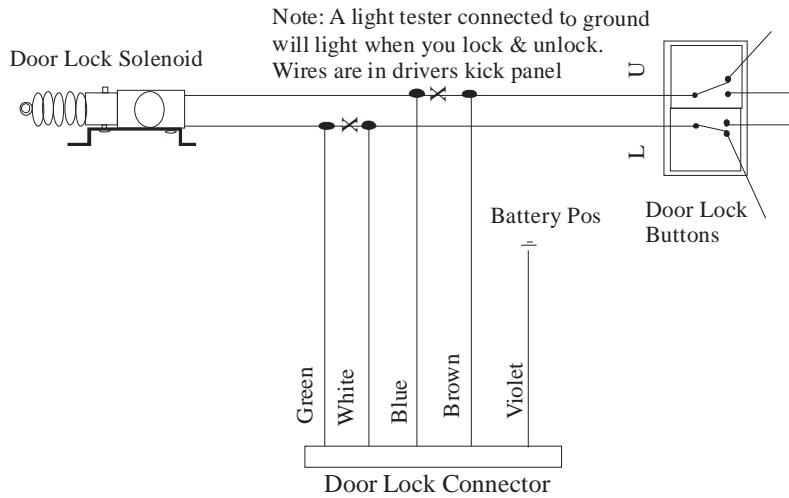
L1 Violet, Common Lock & Unlock. This signal is the common input to the Green and Blue wires. If this is connected to +12V then a positive output will be sent to the Green and Blue wires. If this is connected to chassis ground then a negative output will be sent to the Green and Blue wires.

L1-L5 Door Lock Relays, Continued

Negative or Positive system with factory relays.



Positive reverse polarity door lock system.



i1-i5 Ignition Harness Connections

i6 Violet, Starter Output. This wire provides a positive output to crank the engine and start the vehicle when auto start is initiated.

i5 Yellow, Ignition 1 Output. This wire provides a positive output to energize the vehicle's primary ignition circuit during the duration of auto start and auto run. It also acts as a sensor to determine when the ignition key is on.

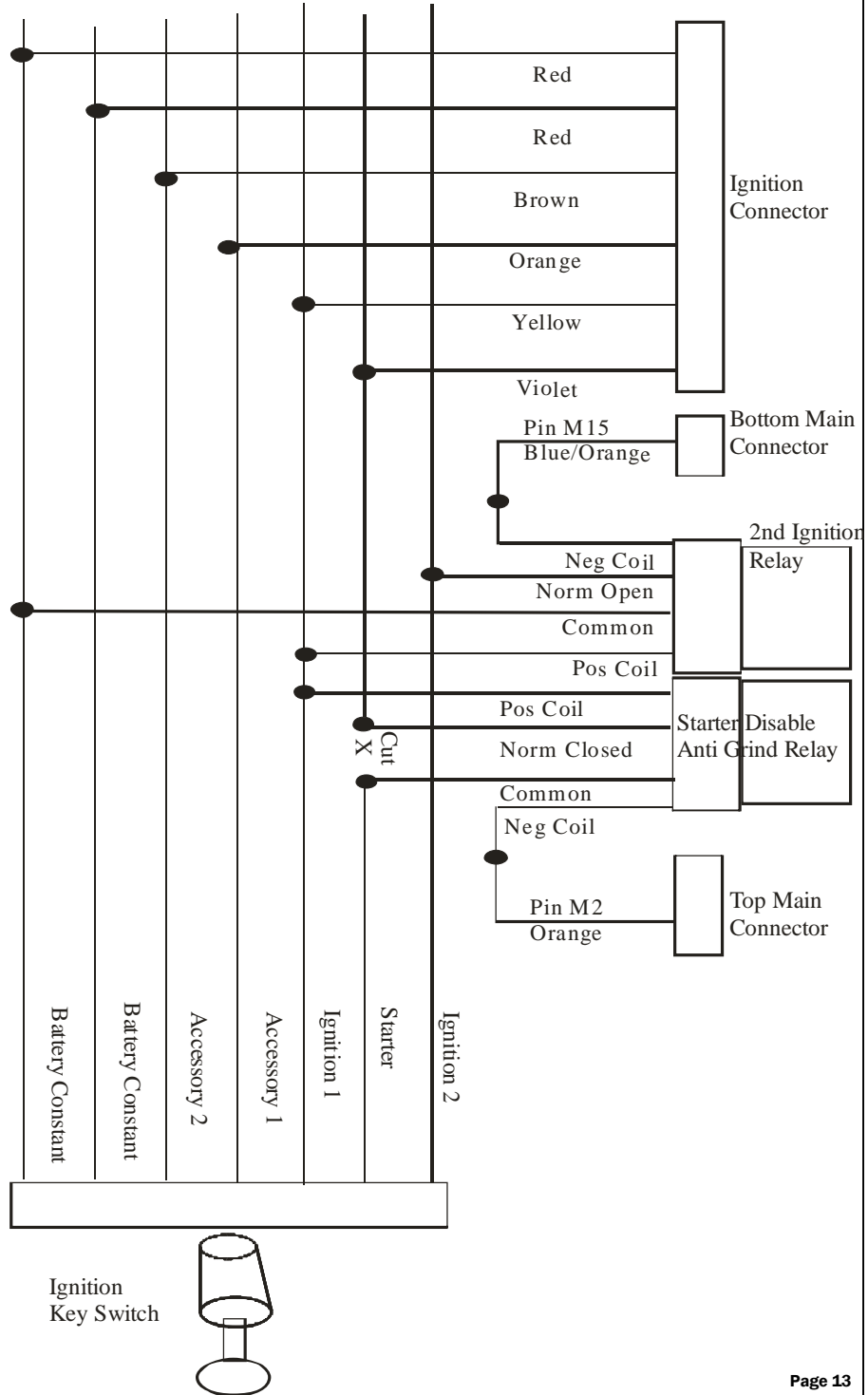
i4 Orange, Accessory Output. This wire provides a positive output to energize a vehicle's accessory circuit after the vehicle has auto started and during the duration of auto start and auto run.

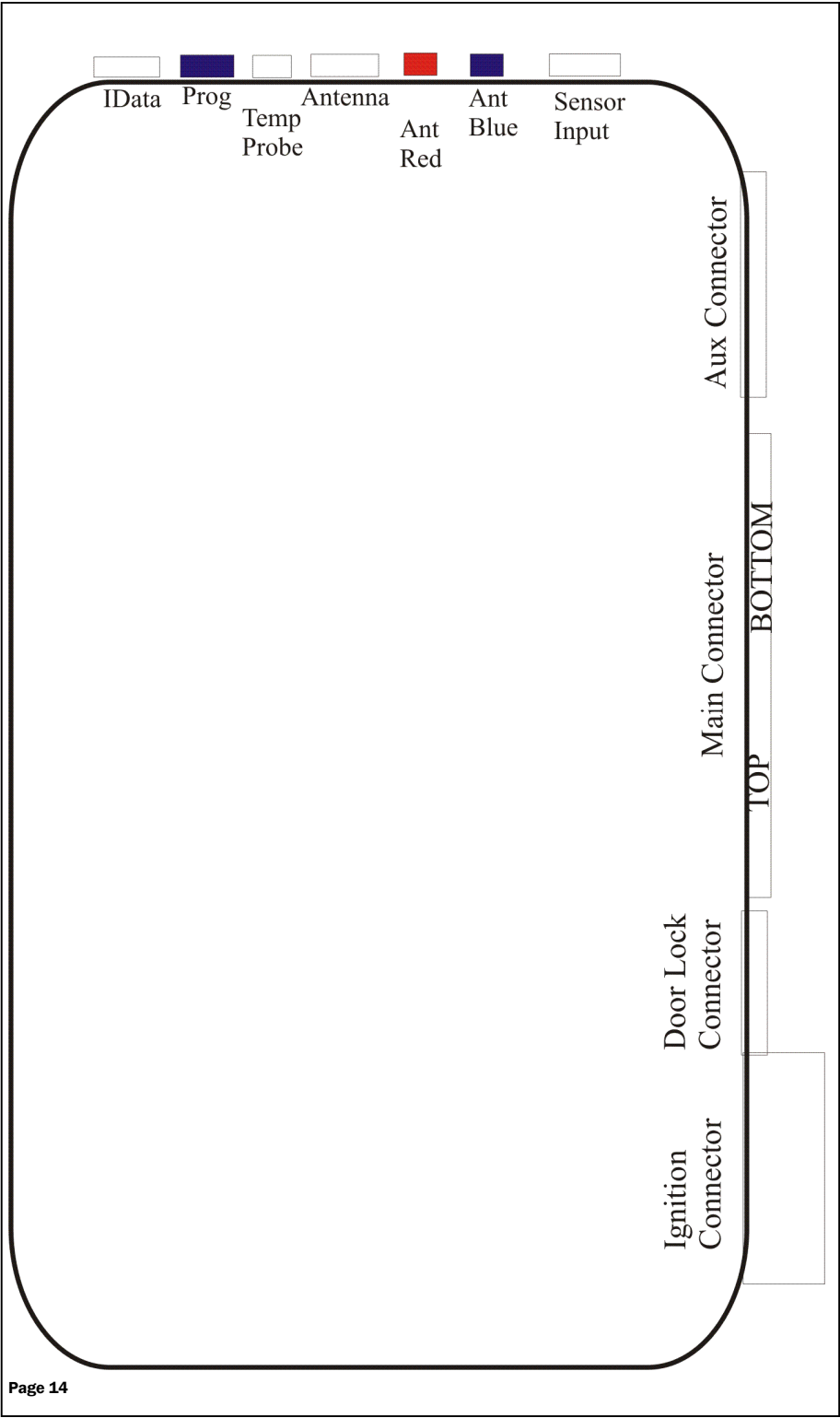
i3 Brown, Accessory 2 Output. This wire provides a positive output to energize a vehicle's accessory circuit after the vehicle has auto started and during the duration of auto start and auto run.

i2 Red, Battery Input 1. This is a main battery input for auto start and run functions. This wire can be connected at the vehicle ignition switch wire harness.

i1 Red, Battery Input 2. This is a main battery input for auto start and run functions. This wire can be connected at the vehicle ignition switch wire harness.

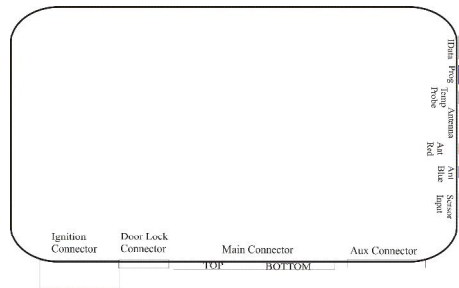
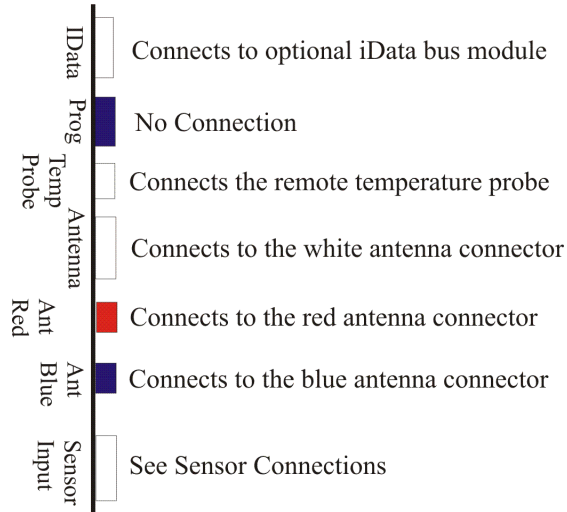
i1-i5 Ignition Harness Connections, Continued





A8 Orange/White	Disarmed Output (-) 500ma
A7 White/Red	Aux 1 Output (-) 500mA
A6 Black/Yellow	Aux 2 Output (-) 500mA
A5 Blue/White	K9Function On/Off Status LED (-) Output
A4 Blue/Yellow	Glow Plug (wait to start) (+/-)
A3 Blue	Trunk Trigger Input (-)
A2 Blue/Black	K9Function On/Off & Alert Delay Input (-)
A1 Green/White	Transmission In-Park Input (-)
M16 Brown/White	Horn Honk Output (-) 500mA
M15 Blue/Orange	Auto Start Output (-) 500mA {Bypass & Ign2 }
M14 Green/White	Brake Pedal Input (+)
M13 Black/Gray	Tachometer or Fuel Injector Input (AC 3-6v)
M12 Red	+12 Battery Positive Input (+)
M11 Black	Chassis Ground Input (-)
M10 Pink	Factory Alarm Disarm/Ignition Output (-) 500mA
M9 White	Parking Light Output (+/-) selectable
M8 White/Black	Hood Trigger Input (-) {shutdown}
M7 Black/White	Hot Temperature Alert Output (-) 500mA
M6 Brown	Siren Output (+) 3A
M5 Violet	Door Trigger Input (+)
M4 Green	Door Trigger Input (-)
M3 White/Violet	Window Up/Factory Alarm Arm Output (-) 500mA
M2 Orange	Alarm Armed Output & Anti-grind(-) 500mA
M1 Gray	Door Pop Trunk Pop (+/-) 7A Selectable
L5 Green	Door Lock Output (Relay N.O.)
L4 White	Door Lock Normally Closed (Relay N.C.)
L3 Blue	Unlock Output (Relay N.O.)
L2 Brown	Unlock Normally Closed (Relay N.C)
L1 Violet	Common Lock & Unlock
i6 Violet	Starter Output
i5 Yellow	Ignition 1 Output
i4 Orange	Accessory Output
i3 Brown	Accessory 2 Output
i2 Red	Battery Input 1
i1 Red	Battery Input 2

Side Harness Connections



Side
Harness
Connections

Sensor Connections

S4 White, K9System On Trigger/Warn Away. This wire can be configured to either automatically turn on the K9 system whenever a ground signal is applied or to trigger the alarm sensor warn away signal when the alarm system is armed. See program branch 6.

S3 Black, Ground Out.

S2 Blue, External Pop Receiver (Pro)/Impact Sensor trigger. This wire can be configured to either trigger the door pop function when a ground signal is applied and the K9 system is activated or to trigger the alarm impact signal when the alarm system is armed. See program branch 12.

S1 Red, Battery Positive Out.

Mounting the Temperature Probe

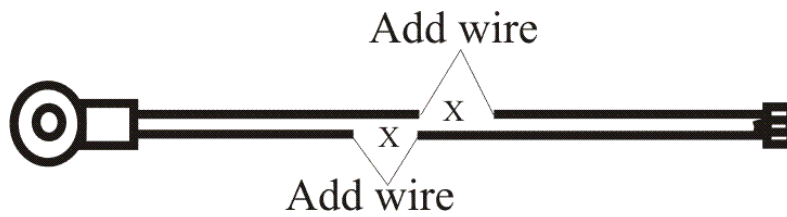
Take care not to locate the remote temperature probe in front of a vent or in direct sunlight as this will cause the system to have an inaccurate temperature reading. Also, if hanging the probe from the roof, make sure there is a least 4 inches of wire hanging as close proximity to the roof will cause the temperature probe to sense a higher temperature level .

Temperature Probe

Connector

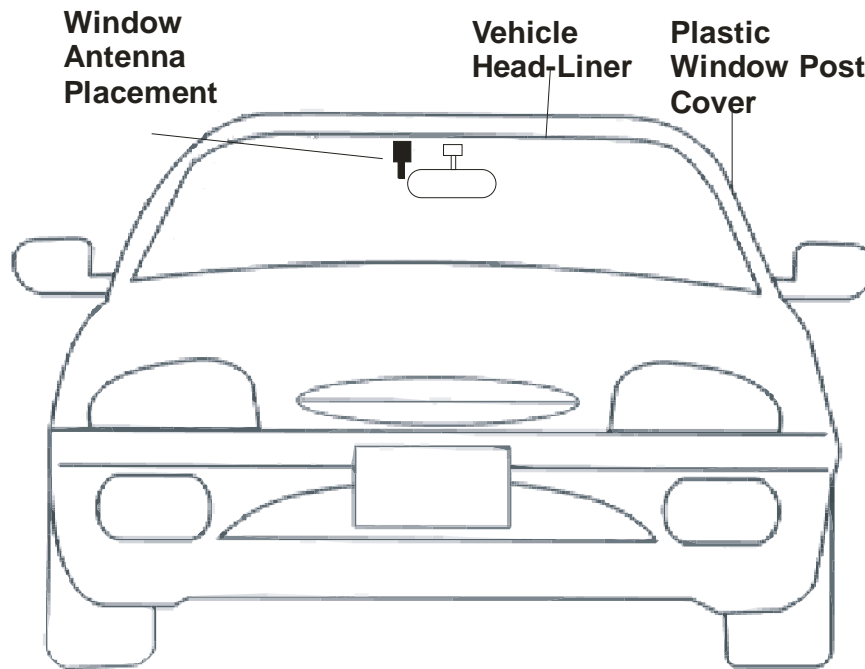


The probe comes prewired with 8 feet of cable. This cable can be lengthened up to 30 ft without adversely affecting performance.



Mounting the 2-Way window Antenna

Find a location near the rear view mirror to mount the 2-Way antenna. Clean the surface of the inside of the window where mounting is to be done. Remove the adhesive film cover from the pager antenna and stick on to the window. The wire can be tucked under the vehicle head-liner and run behind the plastic window post cover.



Programming LCD 2-Way and Standard 1-Way Transmitters

When adding a 2-way LCD transmitter to the system (maximum of two LCD Transmitters total) Any previously stored transmitter will be erased if it is not programmed within the following sequence.

1. Turn the ignition key On, Off, On, Off, On, Off, and back On. (Key On 4 times)
wait for the siren*/horn to chirp/honk 4 times (approx 3-5 seconds later)
2. Press and hold the antenna button for 5 seconds .
 - The siren*/horn will chirp/honk 4 times.
 - The LED will illuminate.
3. Press and release Button 1 on the first transmitter, then on the second transmitter.
 - The siren*/horn will chirp/honk once for every transmitter learned.
4. Turn off the ignition key.
5. The siren*/horn will chirp/honk 3 times to indicate the system has exited programming mode.

When adding a 1-way transmitter (maximum of four) Any previously stored transmitter will be erased if it is not programmed within the following sequence.

1. Turn the ignition key On, Off, On, Off, and back On. (Key On 3 times)
wait for the siren*/horn to chirp/honk 3 times (approx 3-5 seconds later)
2. Press and hold the antenna button for 5 seconds .
 - The siren*/horn will chirp/honk 3 times.
 - The LED will illuminate.
3. Press and release Button 1 on the first transmitter, then on the second transmitter.
 - The siren*/horn will chirp/honk once for every transmitter learned.
4. Turn off the ignition key.
5. The siren*/horn will chirp/honk 3 times to indicate the system has exited programming mode.

Changing Programmable Features

This system is compatible with both the LCD 2-way transmitter or the standard 1-way transmitter, all system programming can be performed using either one.

To enter System Programming:

1. Turn on ignition.
2. Within 5 seconds, press the valet switch 5 times.
 - The siren*/horn will provide three chirps/honks, indicating that you have entered Programming.
3. Press the valet switch the number times equal to the System Parameter you want to change.
 - The siren*/horn will chirp/honk each time the valet switch is pressed.
4. Within 5 seconds, press the transmitter button corresponding to the desired operating mode for that System Parameter.
 - The siren*/horn will chirp/honk to indicate the setting.
- 1 chirp/honk = Button 1
- 2 chirps/honks = Button 2
- 3 chirps/honks = Button 3
- 4 chirps/honks = Button 4
5. When you are finished, turn off the ignition to save the changes.

Some of the features should only be changed by a qualified technician.

These features are denoted with Tech.

Other feature can be changed by the user and they are denoted with User.

Default Reset

Following this procedure will set all System Programming Parameters to factory default settings.

1. Turn on ignition.
2. Within 5 seconds, press the valet switch 5 times.
 - The siren*/horn will provide three chirps/honks, indicating that you have entered Programming.
3. Press Transmitter Button 3.
 - The siren*/horn will chirp/honk 6 times indicating that the reset signal was received.
 - All System Programming parameters are now set to factory default settings.
 - The Valet Mode is off.
4. Turn off ignition.

Programmable Branches/Features

// Button1/ Button2/ Button3/ Button4

Branch1 // Passive/ Manual K9System Activation	*	User
Branch2 // 95f/ 90f/ 100f/ Hot Alert Temperature	*	User
Branch3 // Horn/ Siren/ Both Temperature Alert Warning		User
Branch4 // 15min/ 5min/ 10min/ Disable Remote Temperature Poll		User
Branch5 // 5Min/ 7Min/ 10Min Alert Delay Timer		User
Branch6 // Enable/Disable K9SystemAutoOn Pin S4		Tech
Branch7 // TemperatureAutoStart/ EasyIdle Engine Controller		User
Branch8 // 75f/ 80f/ 85f Hot Start Temperature	*	User
Branch9 // No Selection		
Branch10 // Door Pop/ Trunk Pop Output Selection Pin M1		Tech
Branch11 // 5deg/ 10deg/ 2deg Hot Start Hysteresis.		User
Branch12 // External Pop receiver/ Sensor Input Pin 2		Tech
Branch13 // Disable/ Enable Remote Feature Lockout		Tech
Branch14 // Enable/ Disable Disarm before PinM1		Tech
Branch15 // Disable/ Enable Rearm after PinM1		User
Branch16 // FactoryAlarmDisarm/ Ignition Output Pin M10		Tech
Branch17 // Pulse/ Timed/ Latched/ HotStart Aux1 Output Pin A7		Tech
Branch18 // Pulse/ Timed/ Latched/ Hot Alert Aux2 Output Pin A6		Tech
Branch19 // Manual/ Passive Alarm Arming		User
Branch20 // Disable/ Enable Auto Alarm Rearm		User
Branch21 // Siren/ Both/ Silent Arming Chirps	*	User
Branch22 // No Selection		
Branch23 // Single/ Double Door Unlock Pulse		Tech
Branch24 // 1 Second/ 3 Seconds Door Lock Pulse Length		Tech
Branch25 // Disable/ Enabled Passive Door Locking		Tech
Branch26 // Disable/ Enable Lock After Start		Tech
Branch27 // Disable/ Enable Lock After Shutdown		Tech
Branch28 // Normal/ Extended/ SuperExtended Smart Start Crank Time		Tech
Branch29 // Enable/ Disable Smart Start Temperature Compensation		Tech
Branch30 // SmartStart/ Tach Engine Sense Mode		Tech
Branch31 // RPMLearnTach/ GasEngine/ DieselEngine Program Engine		Tech
Branch32 // Acc/ Ignition Pin i3 Output Type		Tech
Branch33 // Negative/ Positive Wait to Start Input Type		Tech
Branch34 // Enable/ Disable Turbo Timer		Tech
Branch35 // Enable/ Disable Open Door Report		Tech

***Asterisk** denotes that the feature can be changed on the remote menu

User denotes that the feature can be changed by the user.

Tech denotes that the feature can be changed by the user.

Programming Branch Description Explained

There are 35 installer programmable options that affect the way the system will operate. These features can be changed at any time by entering feature programming mode. There is also a factory reset function that allows the installer to quickly return the features to their default setting. Please refer to your installer or installation guide for changing feature settings.

Branch 1 Passive/Manual K9System

This function determines whether the K9 portion of the system will automatically turn the monitoring state on whenever the vehicle arrives at a destination. Arrival is detected when the vehicle transmission is shifted into park and the brake pedal is released.

Branch 2 Hot Temperature Alert Threshold

This is the programmable temperature setting that determines at what temperature the alert outputs will be triggered. There are 3 factory settings that can be selected via this feature. You can also change this setting via the remote control. See Remote Controls (h°)

Branch 3 Temperature Alert Warning

This is the setting to select the audible alert output. The alert can trigger the horn, alarm siren or both.

Branch 4 Automatic Temperature Poll

The system can be set to automatically send a temperature update to the remote at regular intervals.

Branch 5 Alert Delay Timer

The alert delay timer controls the intervals at which the alert signal is sent to the remote and the duration of delay for the alert delay function.

Branch 6 Pin S4 K9system Auto On

This setting selects the operation of the white wire on pin S4 as a trigger to automatically turn on the K9system (dog in car sensor or pressure mat).

Branch 7 Temperature Engine Start/Easy Idle

This feature selects whether or not the system will automatically start the vehicle based on temperature or automatically activate the Easy Idle feature. In Easy Idle the system will keep the engine running every time the vehicle arrives at a destination. Step on the brake pedal to shut the engine. Remote Start will still function in easy idle.

Programming Branch Description, Continued

Branch 8 Hot Temperature Start Setting

This is the programmable temperature setting that determines at what temperature the system will start the vehicle based on High temperature. There are 3 factory settings that can be selected via this feature. You can also change this setting via the remote control. See Remote Controls (c°)

Branch 9 No Selection

Branch 10 Door/Trunk Pop Output Selection (Pin M10)

This setting selects whether the Aux 1 output will be used as a door pop or a trunk pop. As a door pop, Aux 1 can only be triggered when the K9system is Activated and a valid signal is received. As a trunk pop, Aux 1 will be triggered whenever a valid signal is received. Note, the polarity can be changed between negative and positive depending on the jumper setting. See Fig J1 on page 9. If you require door pop and trunk pop then use one of the aux channels to perform trunk pop.

Branch 11 Hot Start Hysteresis

Hysteresis is an offset that determines the shutdown temperature for temperature activated auto start. The default is 5 degrees which means if the start temperature is set to 75 degrees then the cabin has to cool to 70 degrees before the engine will shut off.

Branch 12 Sensor Input/External Pop receiver

This setting selects whether Pin S2 Blue wire will act as a door pop trigger (Pro) when the K9 system is activated or as a alarm sensor input.

Branch 13 Remote Feature Lockout

This feature selects whether all the functions can be processed from the remote or only certain ones. In lockout mode, the remote will not activate/deactivate the K9 system, change hot start, or hot alert temperature.

Branch 14 Disarm before Pop/Trunk Output (Pin M1)

This feature selects if the system will disarm the alarm system before a door pop or trunk pop to prevent the alarm from being triggered.

Branch 15 Rearm after M1 Pop Output

This feature selects if the system will rearm the alarm system after a door pop or trunk pop

Branch 16 Factory Alarm Disarm/Ignition

This setting chooses the type of output for Pin M10 between a factory disarm output or an ignition output. Note, the polarity can be changed between negative and positive depending on the jumper setting. See Fig J1 on page 9.

Programming Branch Description Continued

Branch 17 Aux 1 Mode

This is to select the type of output for Aux 1 Pin A7. The selection can be pulsed, timed for 10 seconds, latched on/off, or during hot start.

Branch 18 Aux 2 Mode

This is to select the type of output for Aux 2 Pin A6. The selection can be pulsed, timed for 10 seconds, latched on/off. Aux 2 can also be selected to supply an output if the Hot Alert temperature has been reached even if the K9 system is not activated (can be used for indication while driving or fail safe).

Branch 19 Manual/Passive Alarm Arming

This is to select the alarm arming feature between manual (remote only) and passive (auto armed after last door closes)

Branch 20 Auto Alarm Rearming

When selected, the system will automatically re-arm 30 seconds after it is disarmed .

Branch 21 Arming Chirps

Selects whether the siren will chirp when the alarm system is armed/disarmed. This function can also be changed via the remote. See

Branch 22 No Selection

.

Branch 23 Door Unlock Pulse

Selects between one pulse or two pulse operation for the door unlock output. Many new import vehicles' factory door locking systems require two pulses on the proper wire to unlock the doors.

Branch 24 Door Lock Pulse Length

Selects between a 1, 3 or 0.1 seconds output for door locking and unlocking. Program to 3 seconds for vehicles equipped with vacuum door locking systems.

Branch 25 Passive Door Locking

Selects whether or not the system will automatically lock the doors during Passive Arming.

Branch 26 Lock after Start

When selected, the doors will automatically lock after remote starting.

Branch 27 Lock after Shutdown

When enabled, the doors will automatically lock after remote shutdown.

Branch 28 Smart Start Crank Time

Selecting engine crank time automatically selects the tachless mode and one of three crank times. If the normal engine crank time is too short increase the time by selecting one of the two additional extended crank time options. Normal - 0.8Sec., Extended - 1.0Sec., Super Extended - 1.4Sec. Tachless Mode. Determines the engine status using an advanced software routine, without requiring connection to the vehicle's tachometer. Tachless operation may not be compatible with some vehicles or in severe temperatures, in which case the tach wire must be connected.

Branch 29 Smart Start Temp. Comp.

Adjusts crank time to compensate for temperature variations.

Branch 30 Engine Sense Mode Smart Sense/Tach Mode

Selects between Smart Sense or Tach mode. Note Tach mode is the preferred method of sensing engine run

Branch 31 Remote Start Program

This dual program branch sets the engine mode for Gas or Diesel, and learns the vehicle's RPM threshold. For installation into a diesel equipped vehicle, first set the engine type to diesel before learning RPM. RPM Learn/Tach Monitor. start the engine, enter Branch 21, the LED light will flash continuously to indicate it is reading the tach signal. Press Button 1 to learn the vehicle's tach signal. The siren will chirp and the LED will flash once to confirm learning of the tach signal. The siren will chirp four times and the LED will flash four times if the tach signal was not learned. Tach Monitor mode: monitors the vehicle's tach wire (or a fuel injection wire) in real-time to determine engine status and adjust starter crank time automatically. Gas Engine. Sets the engine type for Gasoline. Diesel Engine. Sets the engine type for Diesel and monitors the glow plug input to make sure the glow plugs are warm before cranking the starter. If the glow plug wire is not connected, the built-in timer waits 15 seconds before automatically cranking the starter.

Branch 32 Acc/Ignition Output (Pin i3)

This setting selects whether the system will output an accessory signal or ignition signal to Pin i3 brown wire.

Branch 33 Wait to Start Input

Selects between negative and positive input polarity on Pin A4

Branch 34 Turbo Timer

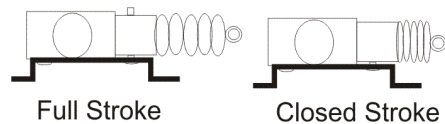
When enabled, if the emergency brake has been applied Ignition power will be kept On for a predetermined time (2 minutes Factory Default) upon arrival.

Branch 35 Ignore Open Door Report

Bypasses the open zone warning chirps for vehicles equipped with a residual dome light circuit that remains on for a period of time after closing the door.

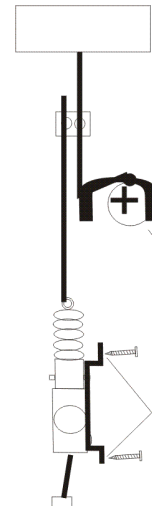
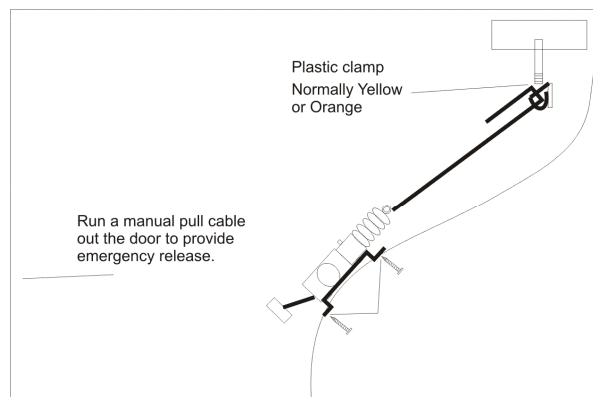
Mounting the Optional Door Pop Hardware

Remove the door panel covering access to the desired deployment door. Find a connecting rod between the door opening handle and the latch release mechanism that does not have a heavy return spring. This rod when pushed or pulled depending on design, should open the door with minimal effort. Find a mounting location for the door release solenoid (DRS) that allows the DRS rod to run parallel to the connecting rod you have selected. It is likely that you will need to bend or trim the DRS rod to some degree for a good fit. Attach the DRS rod to the door latch connecting rod using the provided mounting clamp and screws. If the door latch connecting rod is pulled toward the DRS to open the door, then extend the door solenoid to full stroke and with a center punch mark the spot of the two mounting holes of the DRS. If the door latch connecting rod is pushed away from the DRS to open the door then compress the DRS to a closed stroke and use a center punch to mark the spot of the two mounting holes of the DRS.



Example mounting in parallel to existing latch rod with mounting clamp.

Example mounting on a Crown Victoria with outside handle disconnected.

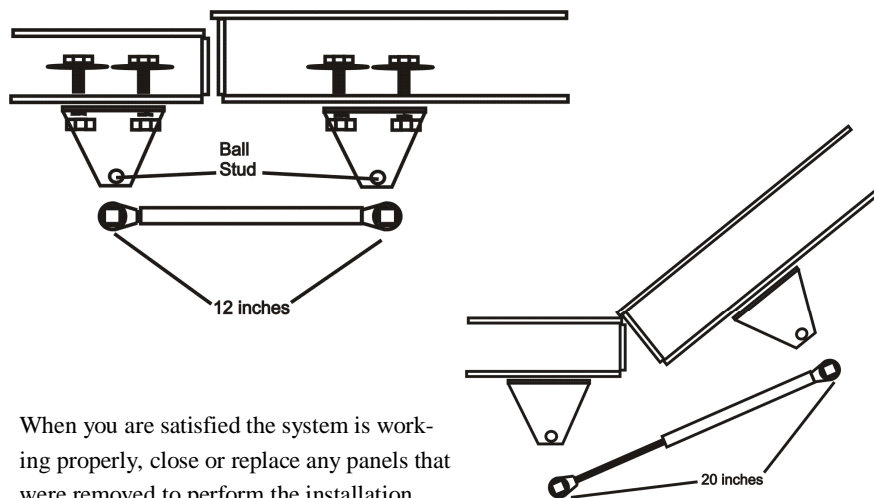


Even though the system can disarm and unlock the doors before the door is popped, a more reliable method of installation is to disconnect the outside handle at the plastic snap connecting the handle rod to the latch. You can unsnap the plastic clamp and drop in the DRS rod after creating 2 90 degree bends or square loop. It is recommended that you install a manual bypass cable that can connect to the same clamp. If the outside handle is disconnected you can attach the rod of the DRS to the door release mechanism without using the mounting clamp.

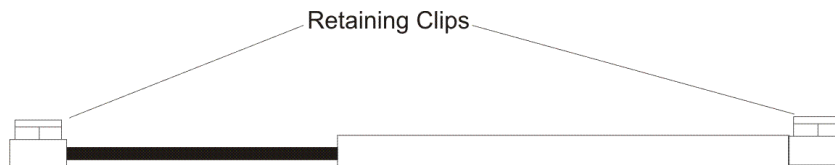
Mounting the Optional Door Pop Hardware Continued

It is recommended that you leave the door panel off until the system has been tested, as some adjustment to the DRS may be necessary. If you are mounting the bracket for the gas charged strut (GCS) to the door panel, then finish all other wiring and mounting to the point that the system can be tested to open the door without the GCS installed. You can simulate the GCS's effect simply by applying pressure to the door with your body from the inside of the vehicle.

Once you have tested and confirmed the system is working properly it is time to install the mounting brackets (DMB) and the gas charged strut (GCS). Find a location on the vehicle's door post or some other strong metal surface. This mounting location will need to handle the pressure of the GCS, "40lbs" over a long period of time. Do not mount to plywood or plastic! Drill two 1/4" holes and install using the mounting hardware provided. With the door closed, measure 12 inches on the deployment door from the point of the ball stud of the mounted DMB and mark it. This will be where the ball stud of the second DMB will need to be located. Align the ball stud of the second DMB with the mark and mark and drill two holes in the appropriate locations. Install the second DMB with the hardware provided.



When you are satisfied the system is working properly, close or replace any panels that were removed to perform the installation. Press fit the retaining clips on the GCS to prevent it from popping off.



K9Safety warrants that all K9Safety products are free from defects in workmanship and materials from the factory. K9Safety will repair or replace any part or parts that K9Safety has examined and that K9Safety is satisfied were originally defective. Defective parts must be returned to K9Safety accompanied by a copy of the corresponding K9Safety invoice with transportation charges prepaid within one year of the date of purchase.

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