AceK9™

Model HP-5020

HOT-N-POP® PRO
INTELLIGENCE INSIDE™

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K9 Hot-N-Pop Pro
Model #: HP-5020
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HOT Status   AceK9.com™   **POP Status**

POWER   MENU   ▲   ▼   SELECT OK

Patent # 7,081,811

Hot-N-Pop® Pro
With Protective Relay Module
Installation Manual
CH5020 62G and up

To be used in conjunction with Vehicle Specific Instructions

Life Safety Equipment

It is vital that all Safety Features are installed, tested and working properly at the time of installation.
Special Attention needs to be made to Power and Safety Warnings.
This Life Safety Equipment must be installed to Emergency Vehicle Up-fitting Standards!

Contents

Introduction

Hot-N-Pop® Pro combines all the features of K9 Heat Alarm® Pro and K9 Door Popper®. The Door Popper features a system that prevents the door from opening while the vehicle is in gear. Our exclusive double pop system unlocks the K9 door and releases the latch when the K9 Popper is activated. The Heat Alarm includes our vehicle monitoring system and Alert Options: S.O.S. Sound Horn Activation, Dual Window Drop, Emergency Light Activation, and Siren Activation.

HP-5020 Standard Parts

1 - **IntelaBox**
1 - **Protective Relay Module**
1 - **Control Head**
1 - **Control Head Cable**
1 - **Owners & Install Manuals**
1 - **Vehicle Specific Instructions**
1 – **Installation Hardware Kit**

K9 Door Popper
1 - **Gas Spring**
1 - **Solenoid**
1 - **Bead Chain** (not required on some vehicles)
1 - **Cable Kit**
1 - **Antenna**

K9 Heat Alarm
2 - **Temperature Sensor**
1 – **Protective Relay Module**
1 - **Window Drop Modules**

Standard Outputs

Door Popper
1 - **Solenoid**
1 - **Unlock**

Standard Heat Alarm Outputs
1 - **Horn Activation choice of (+ or -)**
1 - **Siren Activation choice of (+ or -)**
1 - **Light Activation choice of (+ or -)**
1 - **Window Drop Module Activation (+)**

Optional Accessories (**Purchased separately**)
Fan Activation, in kits with 10" or 12" Fans
AceWatchDog System™ (with Cellular phone App)
Pager System
Smoke detector
Carbon Monoxide Detector
No K9 Left Behind (K9 removal reminder)
Stall Sensor
(not for use in Hybird or vehicles with start-stop systems)

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This manual is used in conjunction with the vehicle specific instructions sheet.

If make, model, and year do not match the vehicle instructions or the equipment is being installed in new vehicle Contact AceK9.Com Service Department.
When contacting AceK9 service, have your SERIAL NUMBER available.
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Safety Warnings and Installation Information
Life Safety Equipment

It is vital that all Safety Features are installed, tested, and working properly at the time of installation*.*

<u>While installing, special attention needs to be made to power and safety warnings.</u>

This Equipment must be installed to Emergency Vehicle Up-fitting Standards! Refer to the vehicles service manual and follow procedures in vehicles modifiers guides during installation.

The window drop module is designed for vehicles with a rear seat K9 Transporter and window guards, to contain the K9 and prevent unauthorized access to the vehicle. If dropping un-guarded windows anti-theft system, equipment vault, and a transporter to contain the K9 are recommended.
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Warning: Install Electronics in dry locations

(**Except Weather resistant Solenoid, Sealed Window and Unlock Relay Modules** designed for in door installation)
NEVER install in the following locations, which are frequently subject to wet conditions.

- On the floorboards.
- Under the floor mats.
- Under K9 transporter.
- In engine compartment.
- Against the air conditioner housing/vents.
- Under seats.
- In equipment consoles.

Connections exposed to moisture should be protected.

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Safety Warnings

Do not install equipment in areas that interfere with vehicles safety systems (airbags, seat belts). Use caution when drilling or installing screws, avoid wiring, fuel lines, or other equipment that might be behind the surface.

Never run wires through a drilled hole without a grommet, wires chaffing against metal will overtime cause malfunctions or vehicle fire. When using a grommet seal to prevent water or fume entry into vehicle. (use a sealant appropriately related for the location)

Installation

This manual is written to provide the information necessary for safe and reliable operation of this Life Safety Equipment. **Read the Vehicle Specific Instructions** to guide you thru the install.

This product is sold for a specific vehicle, with related instructions. Vehicle specific parts may also be included.

STEP 1 Planning *Consult with the end user*

- Determine a suitable mounting location for the Control Head. The Head should be easily visible to the K9 Handler.
- Determine which door they would like to be remotely popped open. For safety reasons, the passenger side rear door is usually the best choice to avoid releasing the K9 into the flow of traffic.
- If a fan kit was purchased determine the preferred location, usually in a rear door window, blowing air across the K9.
- Have end user review Menu settings and customize them to their requirements.

The install will vary greatly depending on the customer preferences, vehicle, and equipment. Review the Hot-N-Pop® Pro Installation instructions including the **vehicle specific install supplement** to get an overview of the equipment placement, wiring and connections. Also review the Installation Information for each of the Heat Alarm Alert Options that you are installing. Make connections following the order outlined below. Consider where connections are made, run wires in groups. Planning will speed installation.

Ground Sharing
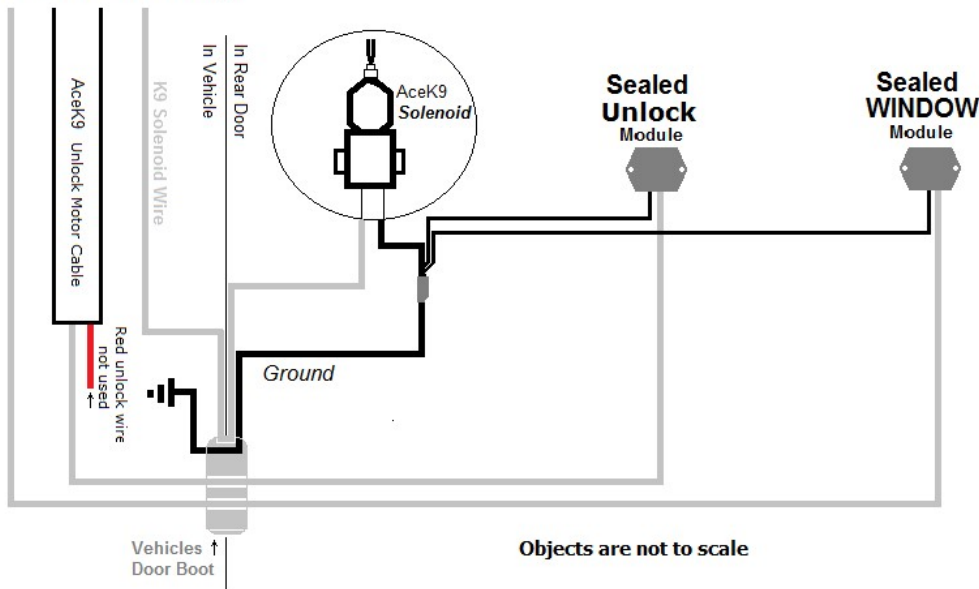
Illustration shows ground sharing Inside the Door.

In this illustration a worse case scenario where a solenoid, vehicle specific unlock module, window drop module, and fan are all mounted in one door. It is recommended that fan and door popper be installed on opposite doors. A 12 GA ground wire is sufficient to provide ground for this setup.

Installation Using Ground Sharing

Solder connection and protect connection with heat shrink, As per vehicle manufacture's modifier guide.
** It is important to run the shared ground to a chassis ground point.
** The Door will not provide a good ground.

Consult With the Authorized End User As to Desired Setup

Parts and setup will vary by vehicle. See Vehicle Specific Information

STEP 2 Control Head installation

Mount securely in a location that is dry and visible to the K9 handler. Plug the control head cable into the head.

STEP 3 Intelabox installation

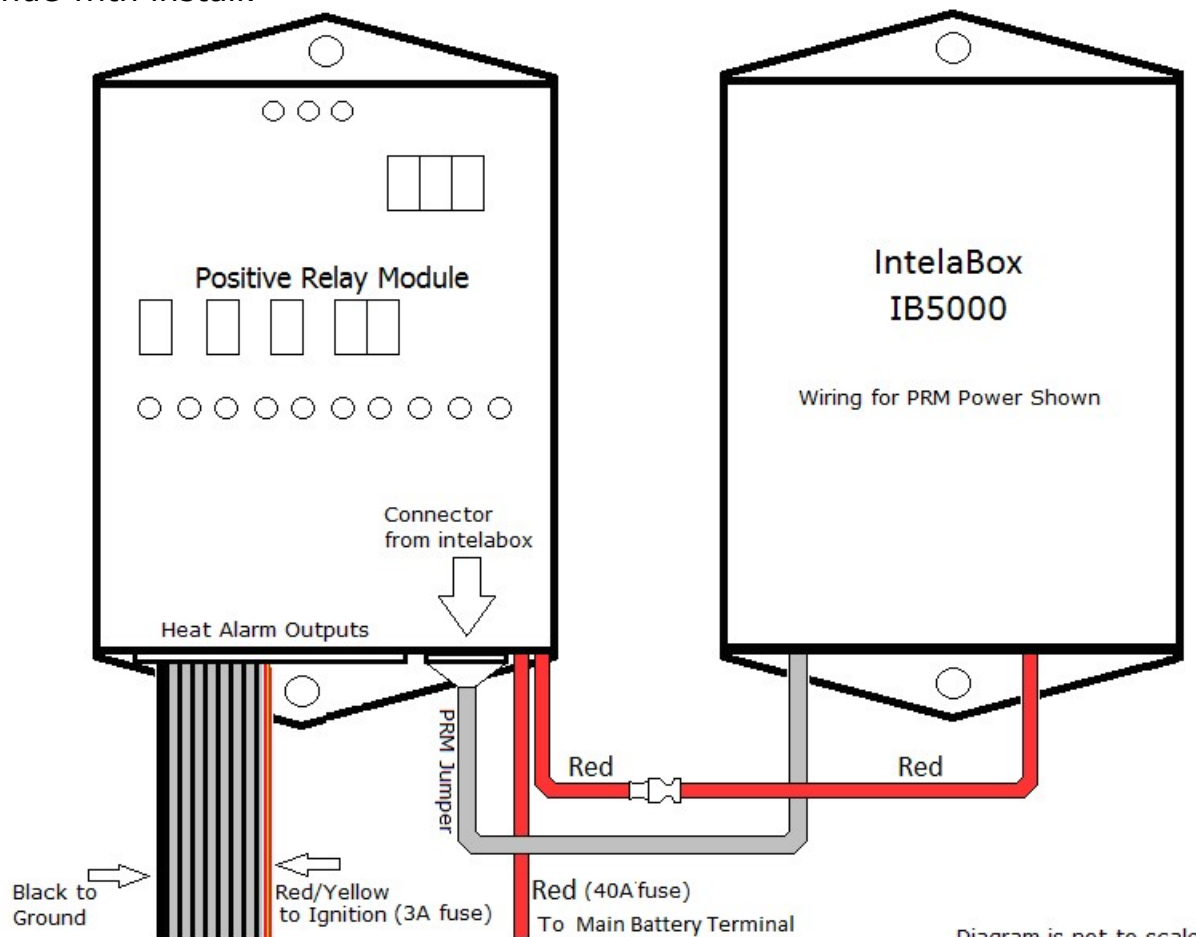**Mount the IntelaBox in a location that allows easy access.**

Find a DRY location where it is easily serviceable for upgrades and programming. Keep Intelabox 2 feet away from Radio transmitters. Do not run control head cable parallel to transmitting antenna cables.

Route the Control Head Cable to the Intelabox. Attach the cable, be sure that the cables (RJ45) connectors go in straight, and the cable is not kinked.

STEP 4 Protective Relay Module (PRM) Installation

The Protective Relay Module is the output controller for heat alarm options and accessories.
- Locate the Protective relay module near the Intelabox.
- **Connect the IntelaBox Heat Alarm Option Cable (Gray Cable with black connector) to Protective Relay Module (PRM).**
- Connect the Intelabox 10 Gauge Red Male Wire to the Red Female wire off the PRM.
- Attach the PRM Black Ground (PIN 12) wire to a chassis ground.
- Attach PRM's **Red Battery wire to uninterrupted Battery at the main battery terminal or factory junction block connected to the terminal**. **Fuse at (40A).**
  - ⓘ *Battery connection must be direct to main battery. Do not use a device that automatically removes power to vehicle and connected systems that notify the K9 handler when the system activates.* This system has features designed to operate with the IGNITION OFF.
- When power is connected, the head will power up and stay on, press [Power] to turn it off. continue with install.

Positive Relay Module

Heat Alarm Outputs

Connector from intelabox

PRM Jumper

Black to Ground

Red/Yellow to Ignition (3A fuse)

Red (40A fuse)
To Main Battery Terminal

IntelaBox
IB5000

Wiring for PRM Power Shown
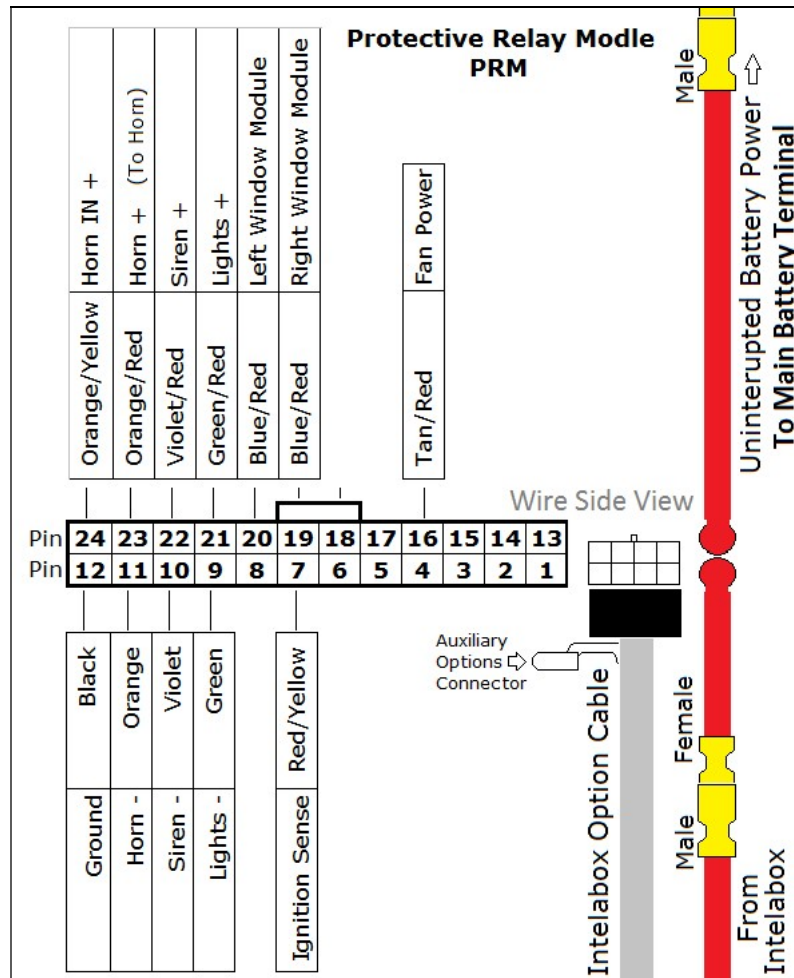
Red

Red

Diagram is not to scale

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Installing K9 Hot-N-Pop® Pro alert features

Connecting outputs from the Protective Relay Module

The Protective Relay Module Provides output wires to activate standard horn, lights, and siren activation, and the window drop feature. To accommodate a variety of setups a choice of low current ground triggers or positive activation are provided.

See your vehicle specific information for horn and window connections.

Emergency light and siren connections are outlined in this manual.

Protective Relay Modle PRM (Wire Side View)

Pin	Top wire	Function
24	Orange/Yellow	Horn IN +
23	Orange/Red	Horn + (To Horn)
22	Violet/Red	Siren +
21	Green/Red	Lights +
20	Blue/Red	Left Window Module
19	Blue/Red	Right Window Module
18		
17		
16	Tan/Red	Fan Power
15		
14		
13		

Pin: 12 11 10 9 8 7 6 5 4 3 2 1

Pin	Bottom wire	Function
12	Black	Ground
11	Orange	Horn -
10	Violet	Siren -
9	Green	Lights -
7	Red/Yellow	Ignition Sense

Auxiliary Options Connector

Uninterupted Battery Power — To Main Battery Terminal (Male)

Intelabox Option Cable — Male / Female — From Intelabox

DO NOT REPLACE FUSES WITH A FUSE OF HIGHER VALUE

A three pin Auxiliary Options Connector is also provided for add on options. Smoke and Carbon Monoxide Detectors utilize this connector. These options connect in line (Daisy Chain)

STEP 5 Horn Alert Feature

A Choice of Positive or Negative Outputs are provided.

- **Consult your Vehicle Specific Information for horn polarity, wire color, and connection location.**
- **When other equipment is attached to the horn wire, always place the K9 connection closest to the horn.**

5A For Horn Ring Connection. (-)
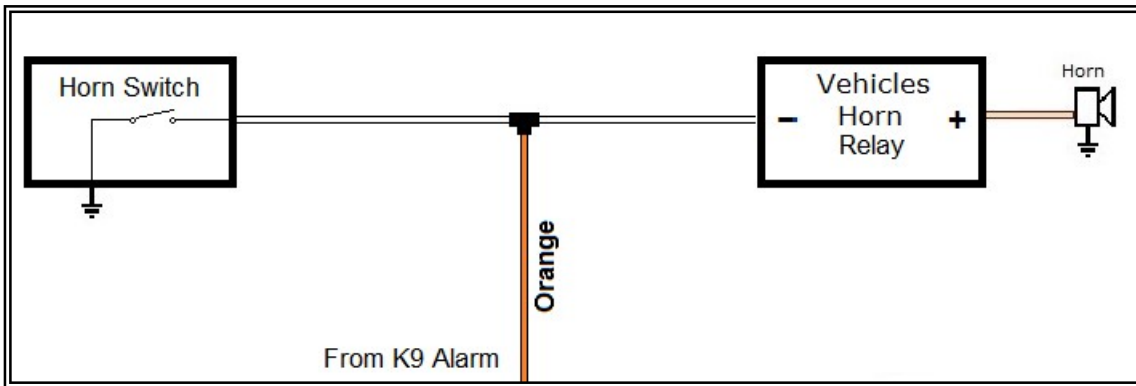## AceK9 Wire Color: *Orange*
Wire Connects to the vehicles horn ring wire.
Polarity: The *Orange* Wire provides a negative low current signal used to activate the factory horn relay. This signal provides a ground trigger duplicating the traditional horn ring switch in the horn pad.
Location: In vehicles with grounding horn switches the wire runs down the steering column to the horn relay or a Control module.
Test: The vehicles horn wire will show ground when the horn pad is pressed (0 volts) and power when not active (12+ volts)**.**
Connection: Splices into vehicles horn ring wire.

5B For Connection at Horn (+)
AceK9 Wire Color: *Orange/Yellow* and *Orange/Red* Wires
Common on Chrysler, Dodge, and Jeep Vehicles. (See Vehicle Specific Information)
Polarity: *Orange/Red* wire provides positive power to activate the vehicles horn, The *Orange/Yellow* wire Isolates the power to prevent damaging back feed to the vehicles computer and allows normal activation of the of horn.
Location: Under Hood at the horn wiring.
Test: The vehicle horn wire will show Power when the horn pad is pressed (~12 volts)
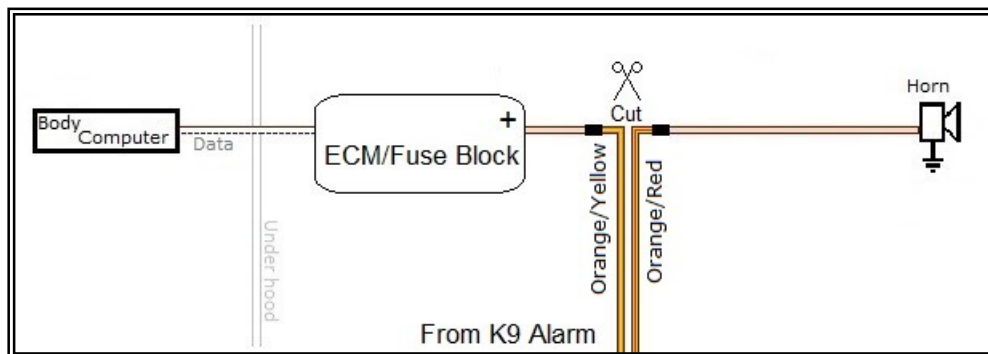**Connection:** Solder and Heat Shrink Connections.
1 Cut the Vehicles horn wire.
2 Extend the K9 *Orange/Red* wire and connect to the Horn.
3 Extend the K9 *Orange/Yellow* wire and connect to the module that provides ~12V when the horn sounds.
When extending under hood use appropriately rated 16ga wire, 14ga (if running more than 8 feet of wire)

STEP 6 Light Bar/Strobe Alert Feature

"TIP" Some Light/Siren Controllers allow for programming of both light and siren activation off one input. A Choice of positive or negative output is provided.

AceK9 Wire Color: *Green* **(-)**
Green/Red **(+)**

Green **(-)** wire provides a negative output (Low Current Ground Trigger 0.75A)
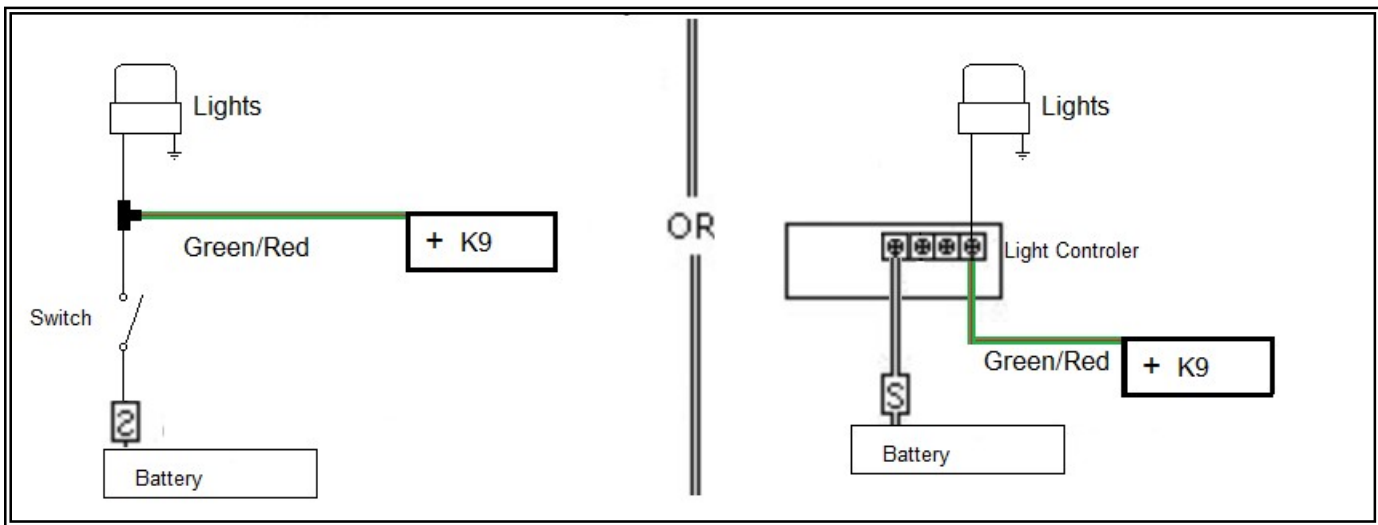*Green/Red* **(+)** wire provides a positive output (12V+ when triggered Fused at 15A Max)

Light Controller Input Method.
Connection: Consult the instructions provided by the controller manufacturer for polarity and programing.

Lights Using Standard 12V light methods (+)
Lights activated by a switch or light controller's isolated Positive outputs.
Connection: Connect the *Green/Red* wire to the light side of the switch or controller.
(12V+ when triggered Fused at 15A Max)

STEP 7 Siren Alert Feature
AceK9 Wire Color: (*Violet* - or *Violet/Red* +)
A Choice of Positive and Negative Outputs are provided.
Violet wire provides a negative output (Ground Trigger 3A Max)
Violet/Red wire provides a positive output (B+ when triggered Fused at 15A Max)
Never connect to wire of emergency vehicles high power siren speaker.

Siren using programmable input.
Violet (-) or *Violet/Red* (+)
Connection: Most siren controllers provide a remote input to activate a siren tone.
Consult the instructions provided by the controller manufacturer for polarity and programing.

Siren using a 12V car alarm speaker. (+)
Connection: *Violet/Red* wire to positive side of 12V siren speaker. Attach the speaker's ground wire to a good ground.

STEP 8 Window Drop Feature

Refer to Vehicle Specific Instructions for window down wire colors and locations.
Using the vehicle specific information as a guide, follow the instructions packed with your window drop module.

The Protective Relay Module's *Blue/Red* wires supply power to the Window Drop Modules. The Window drop modules are weather resistant Sealed Relay Modules "SRM" designed to allow placement inside of doors.

The window drop module is designed for vehicles with a rear seat K9 Transporter and window guards, to contain the K9 and prevent unauthorized access to the vehicle. If dropping un-guarded windows anti-theft system, equipment vault, and K9 transporter are recommended.

Weather Sensitive Window Switches. When installing K9 Transporters' that replace factory door panels, the switch should remain outside of the door skin, between vapor barrier and kennels door panel. Cover switches with a plastic bag, opening pointing down, tied to allow condensation to exit the bag.

STEP 9 Temperature Sensors Mounting

Sensor Mounting location

Never where the K9 can damage the Sensors.
Never within 10 inches of floor or headliner.
Never in direct sunlight.
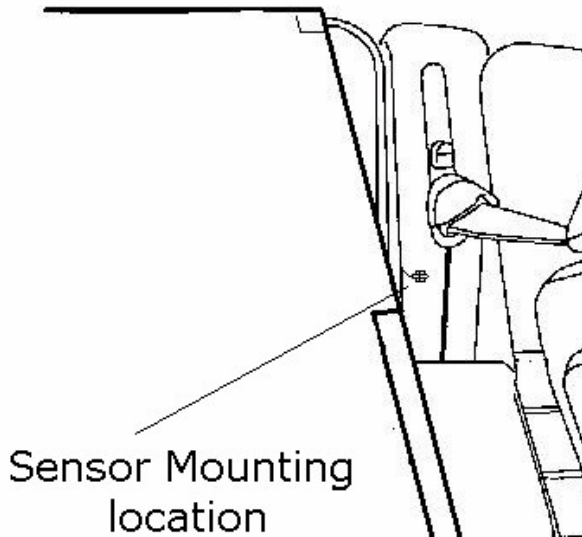***Never*** directly in front of air vent.
Never near equipment that radiates heat.
Never behind trim.
Place sensors in good air flow entering the kennel

DO NOT HEAT TEMPERATURE SENSORS WITH HEAT GUN OR FLAME !

The sensors should be set up to monitor the area where the K9 is housed. Sensor location may vary with vehicle setup and operation.

The Temperature Sensor cables are over 15 feet long so they can be adjusted to the most effective locations.

Sedans or Pick Up Trucks. with K9 transporter behind the front seats.
Mount one temperature in the airflow entering the transporter at front of the K9 transporter on each side. A popular setup is attaching the sensors to each pillar trim (one on each side) as long as there is good airflow into the Transporter.

Sport Utility and Wagons. with K9 transporter behind the front seats.
Mount one Temperature sensor outside of the Transporter, approximately midway up in good airflow, in front of the K9 Transporter and the other in opposite corner, in back of the K9 Transporter, in good air flow. If area behind transporter is isolated from airflow the Sedan method may be more appropriate.

Portable Kennels. When using a portable kennel mount the sensors cattycorner to get the best average Temperature.

Note: Averaging must be turned off if motioning multiple canines in separated locations.

STEP 10 Heat Alarm Ignition Power
Red/Yellow (pin 7)

From the Protective Relay Module connect the *Red/Yellow* Ignition wire to the police package ignition point or switched Ignition power point on the vehicle's fuse panel.
Ignition must be connected for proper operation of K9 Heat Alarm®

Ignition and Power Warnings
Do not use devices that remove power to vehicle systems, alert features of this product or emergency warning systems that it activates.

Vehicles that automatically turn the vehicle off, Alarms, Auto Starters, Antitheft Devices or any systems that shut off ignition power, The K9 Heat Alarm power MUST be set up as to requite manual shut down by the person responsible for the K9.
Use one of the following settings.
"On/Off Manually" Default
 "Car On Manually off"
 "No K9 Left Behind" [if purchased and installed]

STEP 11 Stall Sensor Option Sold Separately.
When installing a Stall Sensor it must be turned on in the Menu
(not for use in Hybird or vehicles with start-stop systems)

The stall sensor makes it easy to detect an engine stall.
See instructions included with the stall sensor.

Step 12 Optional add on modules.
Connect any add on accessories purchased with system. See instructions included with accessory. Do not attempt to connect items not approved for use with this system. See the Installation Manual(s) for details. Use only accessories designed for Acek9.com products.

Heat Alarm test next page

Step 13 Test Heat Alarm portion of the System

Check your settings, the default hot temperature setting is 90 degrees Fahrenheit. (32°c), The stall monitor should be enabled only if a stall sensor has installed. Review or change settings from Menu (See the "User Guide").
Test Procedure for K9 Heat Alarm

1) Power the alarm on. The default power setting is Heat Alarm "Car on Manual Off". When the vehicles ignition is turned ON, the Heat Alarm powers up, Press the [Power] button to turn off.

2) System Status. Observe the temperatures and vehicle's battery voltage. The hot status light will be illuminated when the displayed temperatures are below the hot set point and the system is not in "Snooze Mode".

3) System Output Test. Press the MENU key (for a second), use the arrow keys to scroll through the Menu. The last Menu choice is "**System Test**", Press OK to start test of all the installed Heat Alarm alert options. Verify that ALL the included Heat Alarm alert options worked. Follow remaining prompts to check control head functions.

4) Test Temperature Sensors.
- **With the *Hot Status light illuminated*,**
- Turn the vehicle's climate control to the heat position to manually raise the temperature inside the vehicle.
- *DO NOT HEAT TEMPERATURE SENSORS WITH HEAT GUN OR FLAME TO TEST!*
- Monitor the temperatures displayed on the heat alarm and confirm that the alarm activates when the hot set point is reached (90 Degree Default)
    - The *Center Temperature is the average of left and right sensor.*
- *When the average temperature exceeds the hot or cold set point the alarm Activate "Pre-Alert" followed by "Full Alert" Activation of installed features.*
- Verify that ALL the included Heat Alarm alert options worked.
- Return the vehicles climate control to the appropriate position.

K9 Door Popper® Installation

STEP 14 Neutral Safety
See the vehicle specific supplement for your vehicle

The purpose of this wire is to detect when the vehicle is in park. (Ground in Park)
It is CRITICAL that the Brown Neutral Safety wire is attached to the vehicle wiring properly to allow the K9 Door Popper® features to prevent the door from popping when the vehicle is in gear and potentially moving. If this connection is not done correctly the canine could exit and be harmed while the vehicle is in motion.

Connection: Splice the **Brown** neutral safety wire to the vehicles park signal wire or transmission range sensor wire.

STEP 15 Door Popper Antenna

NOTE: If a combined pager and door popper antenna was purchased, follow the instructions included in the Dual Band Kit.

Mount the K9 Door Popper® antenna by drilling a hole on roof or trunk lid.

Mounting Keep Antenna as far away from other antennas as possible.

1) Drill a 3/4" (19mm) hole in the roof or trunk lid of the vehicle.
2) Remove burrs, particularly on the underside of the hole. Be sure to remove paint in a narrow ring around the hole. Metal to metal contact provides the best performance.
3) From above, feed the coax and serrated part of the mount (mounting assembly) through the hole. This is easier if the locking nut is screwed a turn and a half to the mounting assembly.
4) Pulling up on the lock, jiggle the mounting assembly. The mount's step will slip into proper alignment in the hole. Still pulling up, tighten down the locking nut until finger tight. Be sure the "O" ring on the underside of the locking nut is properly seated.
5) Carefully attach antenna mast to the mounting assembly
6) Route the cable to the IntelaBox attach and antenna.
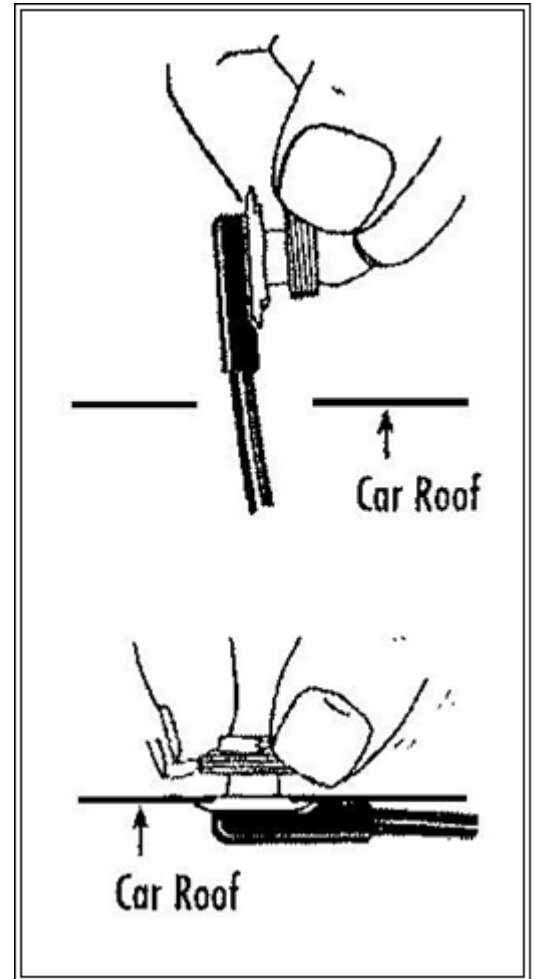
STEP 16 Door Preparation

Remove the Door Panel from the door that is going to be remotely opened. If vehicle uses linkages and lock rods be sure they are removed or secured and do not bind. When connecting to inside handle, be sure that child safety lock is disabled.

Window Switch Warning

When installing K9 Transporters' that replace factory door panels, the switch should remain outside of the door skin, between vapor barrier and transporters door panel. Use a plastic bag to cover the switch, with bags opening pointing down, tie in a manner that allows any condensation to exit the bag. Be sure that the switch is secured from falling, in a location that it will not get crushed by the travel of the window or while installing replacement door panels.

11
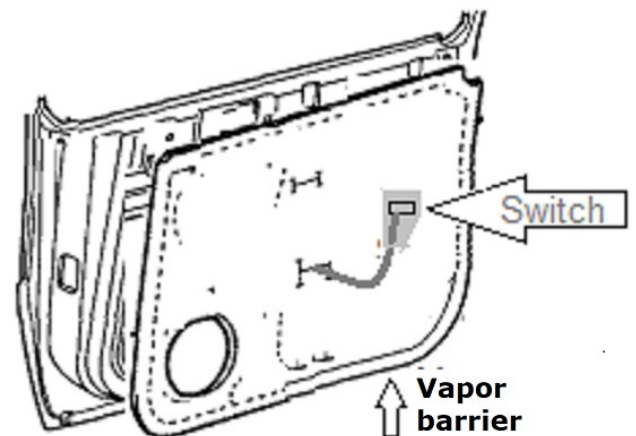
STEP 17 Unlock Connection. Vehicles not requiring an unlock module.

Unlock Cable color: Blue cable with Yellow and Red wires.
For this step it is important to check your vehicle specific information sheet before you proceed. Some vehicles require an unlock module.

17A Route the Unlock Motor Cable to the b-pillar or into the door being popped.

17B For Ground at rest systems; locate the unlock motor wire using a voltmeter; this wire will go positive during unlocking and stay at ground when not active (at rest).
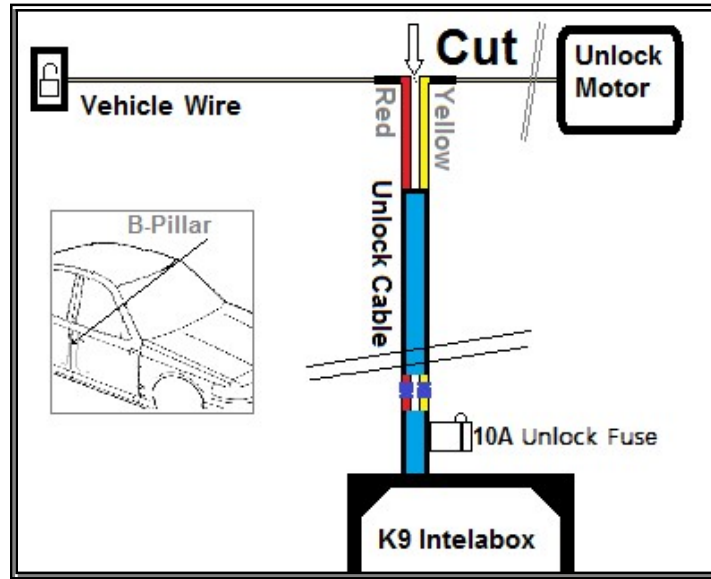
17C Cut this wire attach the cable's *Yellow* wire to the wire going to the Motor. Attach the *Red* wire to the wire coming from the switch/body control module.

Note: There is a 10A fuse attached to the solenoid at the IntelaBox if the fuse is blown check that the wires are in the correct direction and Check for shorts, kennel panel screws or other shorts to the wire.

STEP 18 Solenoid Wires
Solenoid wire color: Orange
Solenoid ground wire color: Black

Be careful to route the wires away from the window's travel and avoid sharp objects. Connect Unlock to only the door that is popped.

18A Connect solenoid ground to a good chassis ground point.
DO NOT GROUND SOLENOID TO DOOR the hinges make a poor ground.

18B From the IntelaBox, Route 10GA *Orange* solenoid wire to the Door being popped open. Pull the orange wire and ground wire into the door.

STEP 19 Attach Door Popper Wires
Attach unlock, neutral safety, and solenoid wires to the IntelaBox.

<u>STEP 20</u> Solenoid Installation

IT IS VITAL THAT ONCE THE SOLENOID IS INSTALLED, THROUGH TESTING BE DONE PRIOR INSTALLING THE DOOR PANELS.

Lock Nut   Clevis Yoke   Chain Coupling

Ball chain included in some kits
See vehicle information supplement

Spring Clip + Ball Chain & Coupling

Obtain a good view of the door latch mechanism. Locate the cable or lever on the door latch mechanism that if pulled will unlatch the door.
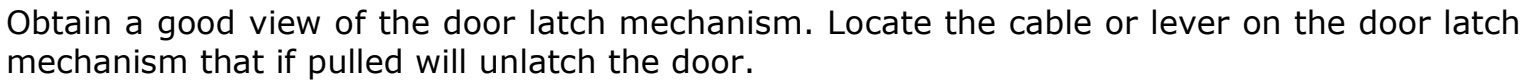
Mounting the solenoid Determine a mounting location in the door for the solenoid that will allow it to pull the door latch lever in straight alignment be sure to avoid interference with linkages or the window travel.

Inside handle connection can be utilized when cable is used, many cables have ball or barrel ends that can connect directly to the ball chain coupling. (child lock needs to be disabled). The Heavy-Duty Solenoid works best with some slack. See Adjustment information below.

Outside handle connection. Usually there is a lever that moves down when the outside door handle is pulled up. When attaching to a linkage use the spring clip to attach to the door latch lever. Place the Solenoid in the approximate area where it will be mounted. Detach the ball chain from the ball chain coupling at the solenoid or the spring clip and cut slightly longer than the expected length (you can always cut the extra if it is too long). Attach the chain between the solenoid and the linkage. You can then remove extra beads and make a fine adjustment tension by loosening the Lock Nut and turning the Clevis Yoke up or down the Solenoid threaded stud. The Heavy Duty Solenoid works best with some slack in the chain. When there is no tension on the door latch lever re-tighten the Lock Nut. Apply thread locker to lock nut and yoke.

ADJUSTMENT. *When a loud "clack" is heard, there is too much slack. The solenoid is bottoming out, adjust the yoke in or remove beads to remove slack.*

If there is too little slack the solenoids piston will not have enough momentum to release, in this case turn the yoke out to allow the solenoid to achieve the necessary momentum.

Solder the solenoid wires and Protect with heat shrink. The solenoid's black wire connects to the 10 Gauge Black Wire, ground to Chassis. The solenoid's Red and White wires connect to the 10Ga Orange Wire.

DO NOT INSTALL THE DOOR PANEL BEFORE THOROUGLY TESTING.

Door Pop Testing.

Turn ON the Hot-N-Pop Pro. Verify that the Pop status light is on and not flashing (see Neutral safety information if flashing). Using the K9 Door Popper® Remote to activate the door deployment. With the door open, use a tool to simulate the striker. Move tool into the door latch to the closed position; pull the tool back to simulate the door in the closed position. Press the Remote's button. If latch fails to release adjust the Solenoid. Lock the door and repeat the test. When you have confidence that the Solenoid is releasing the door latch mechanism, close the door without reinstalling the door panel. **Pull on the door to simulate the spring pushing on it** and test again. When you are very confident that the Solenoid is working reliably, use cable ties to secure the Solenoid & unlock wires. Check that the door locks and unlocks from the master switch. Re-install the door panel and test again.

STEP 21 Gas Spring Mounting

Overview: The door should be fully open when the spring is installed. The Gas Spring should be mounted at an angle. The rod of the gas spring should be connected to the lower bracket. The Mounting position and angle will vary depending on vehicle and transporter construction. The angle generates a damping affect at the end of its stroke, providing smoother operation, and reducing impact to door and spring.

Spring Installation:

1. Start with the mounting brackets attached to the spring ends.
2. Open door fully, with door resting against its stops. Hold the spring to the door, visualize the swing of the spring with the door closing.
   - The spring should allow the door to fully open without the spring being completely compressed or extended
   - Check for objects that could interfere with the motion of the spring.
   - Brackets need to be slightly off parallel, compared to the spring, to compensate for angle change as door closes. **Extreme Bracket angles may cause the spring to pop off.** See illustrations for approximate placement of brackets..
5. With the door fully open, dry fit the spring, mark your screw hole locations for the bottom bracket, then mark the upper bracket back 1/4" from the gas springs fully extended position.
6. Remove the brackets from the spring by gently pry the spring clip with a flat screw driver.
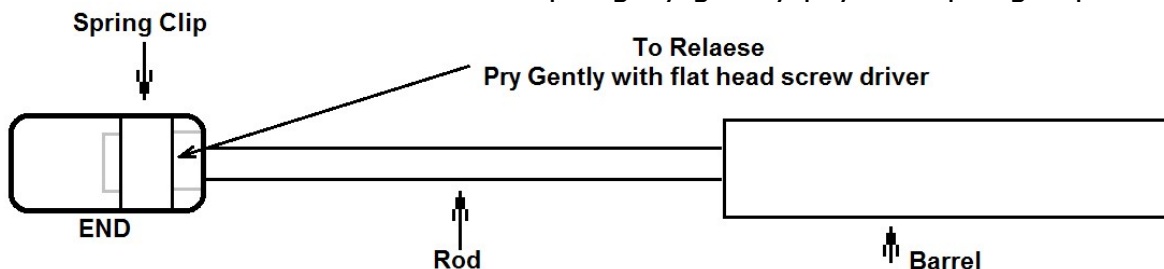
7. Mount the transporter side bracket first. Use a 9/64" drill bit to make pilot holes for the screws.
8. Attach spring to the bracket, so that the **rod end is below the barrel**.
9. Mount the door side bracket so that the gas spring will be compressed 1/4".
10. Clip the spring to the mounting bracket.
11. Test the door popper the door should open smoothly and stop with minimal door bounce.

Brackets mounted slightly off parallel to spring.

Alternative Mounting

<u>Step 22</u> Finish Install and Test System

Recheck wiring placement, and connections. Secure cables and wires with cable ties. Install the IntelaBox in its accessible location. Protect all connections, components that may be exposed to weather, when wires run through grommets check that the have been properly sealed to keep water entry. Completely test the K9 Hop-N-Pop® Pro. Check the K9 Door Popper® with the remote at a distance and from the control head. Confirm that the K9 Door Popper® does not release the door when the vehicle is in gear. See test procedure.

IMPORTANT: It is the responsibility of the Installer and the Handler to confirm that all safety features are installed and working properly at the time of installation. The handler is also responsible to make continuing periodic checks of all safety systems of this product.

K9 Door Popper Test Procedure

1) The default power settings are Door Popper and Heat Alarm is "Car on Manual off". When the ignition is turned ON, the Heat Alarm and Door Popper will power up.
2) With door popper on. Observe the pop status light.
3) Put the vehicle in PARK and confirm that the Door Popper status light is ON; this indicates that Door Popper is READY.
4) Put the vehicle in REVERSE and through ALL the DRIVE gears, D-3-2-1 etc. and confirm that the Door Popper status light FLASHES, this indicates that Door Popper is DISABLED.
5) With the vehicle in gear press BOTH the UP and DOWN keys simultaneously -or- press and hold any button on the remote and the door should NOT Pop.
6) Lock the doors from the drivers switch.
7) Put the Vehicle IN PARK, Press BOTH the UP and DOWN keys simultaneously –or- press and hold any button on the remote and the door should pop. Note the other doors should remain locked to prevent unwanted entry into vehicle.
8) Lock the doors and retest. Verify that the door that is locking and unlocking.
9) Test Door Popper Remote at 200 to 500 feet to confirm remote's range.
10) Visually inspect that the gas spring is mounted at an angle (rod down) and confirm the brackets are not binding and that the door fully opens.
11) Repeat Heat Alarm test (Step 13)

If any of these tests fail, check the installation.
Contact AceK9.Com Support with the Serial Number, Call 772-600-7574

Be sure K9 handler receives a copy of the User Manual.

<u>**Acek9.com Two (2) Year Limited Warranty**</u>
For details visit http://www.acek9.com

Trouble Shooting

Communications Error, no power to head.
Check Control head cable for damage.
Check that connectors are fully inserted.
Check for corrosion on connectors and sockets.
Check that control head cable is not running parallel to transmitting antennas (only happens during transitions (keying the microphone) Call for AceK9 for assistance.
Check power and ground to the PRM and that the IntelaBox is plugged in to the PRM.
Replace Control head cable, the cable is straight thru cat 5 style cable.

Display beeps and/or flickers when ignition power is turned on.
Check Battery Power connection at main battery. Never to an auxiliary battery.
Check Control Head Cable. (Straight thru Ethernet configuration.)
Check for corrosion on connectors and sockets.
Check Ground Connection.

Alarm Displays Snooze Mode
Alarm is in snooze mode. Start up snooze mode allows the K9 handler time to start the vehicle, allow the temperature in the vehicle to reach a safe level, and resolve any alarm conditions. When the vehicle is running, and the temperature is at a safe level the status light will turn on indicating monitoring of temperature. (See User's Manual)
.
Stall Sensor Alarm While Driving or Idling.
Stall sensors adjustment is needed, check location of sensor it needs to be located over coils in the alternator (see install manual) Note: if a sensor was not purchased, stall monitor needs to be disabled in menu.

Temperature Sensors Show Different Readings
Display Shows Temperatures as Left, Average (in center), and Right
Sensors reading will vary with location and conditions. If it is necessary to prove the accuracy of the sensors by place both sensors together in the same location, they will be within less than one degree of another. (allow the sensors some time to adjust).

Sensor reading differences are caused by the following. (See install manual for placement)
      Sun heating the car body.
      Sensors too close to the headliner.
      Air conditioning flow.
      Open windows or air leaks.
      Sensors not in good airflow.

No Door Popper Operation from Remote or Control Head.
Pop Status Light Should Burn Steady in Park, Blink When in Gear. If blinking in park the neutral safety connection should be checked.
(See Vehicle specific information).

Door Will Not Pop Open When Activated, Clicks Are Heard. Possible Causes
      Solenoid is not grounded to chassis.
      Door Release cable is binding.
      Unlock wires connected backwards or shorted. Check 10A Fuse at IntelaBox.
      Solenoid needs adjustment.
      Loose or broken electrical connection.
      Child Lock is on.

Hot-N-Pop Pro with Protective Relay Module
INSTALL MANUAL

(772) 600-7574
E-Mail Service@AceK9.com
Hours of operation Monday thru Friday
8:00am to 4:30pm EST All Rights Reserved.AceK9

Neutral Safety
See Vehicle information for location

Under Hood
Vehicles Neutral Safety

Optional
Stall Sensor

In Dash
Neutral Safety Park Signal

Brown
Neutral Safety

Unlock Fuse— 10A

IntelaBox IB5000

Not all wires are shown

Unlock Cable

Rear Door
Unlock Motor
Solenoid
Window Drop Module

Solenoid

ORANGE

Main Uninterupted Battery Power

40A **Red**

Red
Red

Temperature Sensors
See Manual for placement detail

Options Cable

Control Head

See Vehicle Specific Information Supplement for location of connections

Diagram is not to scale

Red/Blue

Conection From IntelaBox

Protective Rely Module (PRM)

Special Option connector

Ignition   Red/Yellow

Fused Ignition Power

Outputs for add on options

Heat Alarm Outputs

Red/Blue

Or

in rear Doors

Window Drop
See Vehicle information for detail

B-Pillar

Red/Blue

Ground

Horn + Orange/Red

Horn + Pass Thru Orange/Yellow or (-) Horn Orange

Green or Green/Red
Violet or Violet/Red

Horn
Under Hood
(+) to horn
From BCM
– Horn

Or

Factory Horn Relay
Consult your Vehicle Specific Information for horn polarity

Emergency Light & Siren Controller

Lights

Siren

Drivers B-Pillar
Window Drop Module

Rear Door
Window Drop Module

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