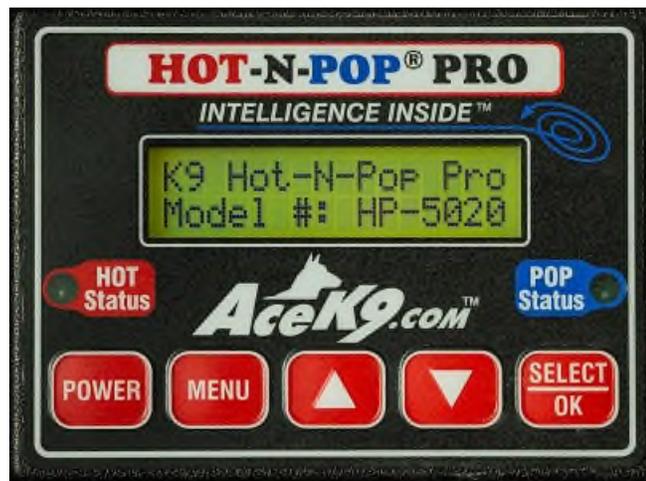




A division of Radiotronics, Inc.

## Model HP-5020



## User Manual

Operating Instructions



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# Introduction

The Hot-N-Pop® Pro is a state of the art product designed and developed by the AceK9.com™ division of Radiotronics, Inc. The microprocessor controlled Hot-N-Pop Pro is a unique blend of positive features taken from field use of our K9 Heat Alarm® and K9 Door Popper®.

**Standard Monitoring Features:** The K9 Hot-N-Pop® Pro monitors the vehicle's interior temperature and battery Voltage. When the alarm sounds, the handler will be alerted by honking the horn, activating emergency lights, siren and rolling down both rear windows to allow air flow through the vehicle.

- ✓ Temperature Sensor Averaging – Reduces false alarms.
- ✓ Exclusive S.O.S Horn Honk™.
- ✓ Non-Volatile Memory – Temperature and other settings are maintained in memory when power is disconnected.
- ✓ Dual Window Drop. *\*Rear windows do not drop in cold alarm*
- ✓ Menu allows you to adjust settings to your needs.
- ✓ Temperature Sensors Monitor – Warns of damaged sensor and sets off alarm if both temperature sensors are damaged.

## **Optional Monitoring and Safety features:**

- AceWatchDog System - Smart Phone Monitoring System & App.
- E.S.M. Engine Stall Monitor™ – Alerts of Engine Stall BEFORE the vehicle's interior gets too hot or cold.
- No K9 Left Behind - K9 removal reminder system
- Smoke Detector
- Carbon monoxide detector

**Door Popper features:** The K9 Door Popper® will enable you to release your canine to your aid when you are away from your vehicle.

- ✓ K9 Door Popper® Safety feature– When Remote is pressed for a second the door will unlock and then release popping open the door.
- ✓ Door Popper Stopper™ – Extremely important neutral safety feature that prevents the door from opening when the vehicle is in motion.
- ✓ A Gas Spring – Quickly pushes open and holds the door to allow the canine an unobstructed release.
- ✓ External Antenna – Enables long range reliability.
- ✓ Door Popper “On By Arming” feature

# Overview of Settings

**Factory default settings are based on the most commonly requested settings selected by K9 handlers. However you can customize them to your needs.** See menu choices sections.

## K9 Heat Alarm® Operation

### **Default Menu Choice Setting ON /Off with Car.**

This is the most commonly requested setting. A Reset to Default from the menu will activate these settings.

**Overview:** This setting requires leaving the vehicle running with the climate control ON to maintain a safe environment for the canine. When the vehicle is shut off the canine must be removed from the vehicle.

### **Setting in On/Off with car**

K9 Heat Alarm® Power: On/Off with vehicle.  
Door Popper Power: On/Off with vehicle.  
Hot Set Point: 90°  
Cold Set Point: Disabled  
Stall Sensor Enabled (Disable if not purchased)  
Auto Snooze Mode: Enabled  
USA or Metric Fahrenheit  
Temperature Averaging Enabled

### **Heat Alarm with Power "ON/OFF WITH CAR":**

- The heat alarm will turn on with the ignition.
- Snooze Mode, in many cases will automatically appear when the K9 Alarm is turned on. This 10 minute period that allows your alarm to start up without premature alarm activation. SEE SNOOZE MODE and ALARM MODES section for detail.
- Additional menu settings are available to customize the AceK9 Alarm to your needs.
- Door Popper Settings will follow heat alarm setting unless a custom setting is chosen. See Door Popper section for detail.
- When the ignition is powered off, the heat alarm will power down.

## Alternative Heat Alarm Menu Choices

Heat Alarm Menu Choice	Description
On/Off With Car	Turns on and off with Vehicle
Auto On Only	Turns on with vehicle, off from power button
ON/Off Manually	On and Off from power button
No K9 Left Behind	Turns on with vehicle, Off When Dog is removed*
Off All The Time	Off All The Time, can be changed from menu

\* Additional hardware require

# Operation Overview

**Snooze Mode:** At start up, Snooze Mode will automatically appear if there is an over temperature or another condition that requires attention. A Snooze period of approximately 10 minutes allows time to get the vehicle running and cooled down for the safety of your K9. When the Hot-N-Pop<sup>®</sup> Pro does not detect a safe condition at the end of the Snooze period the Pre Alert alarm will activate. During Pre alert Snooze can be manually reactivated (By pressing OK). Only 3 snooze periods are allowed.

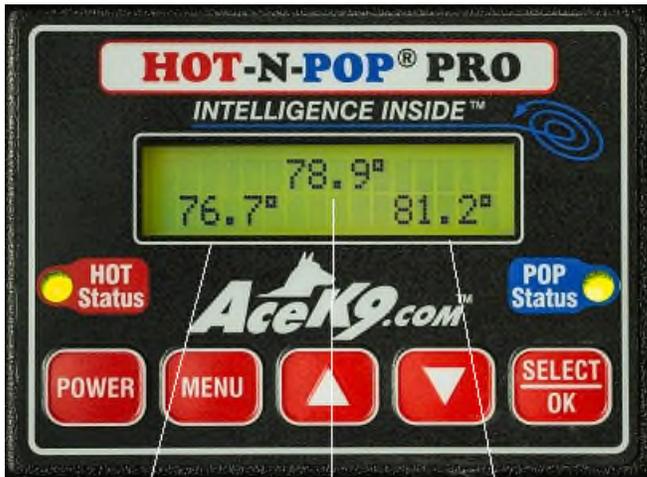
**Note:** During Snooze, the handler is responsible to monitor the conditions of the canine.



↑  
Stop Alarm

↑  
Snooze  
Pre Alert

**Dual Temperature Sensor Averaging™:** The individual temperature sensor readings are displayed along with the average temperature. This enables the Hot-N-Pop<sup>®</sup> Pro to obtain a much more accurate reading of the vehicles interior temperature. With averaging enabled, unnecessary false alarms are avoided when one of the temperature Sensors is in a warmer location. (Example: direct sunlight or open window). In order to activate the alarm, the AVERAGED (center) temperature sensor readings must reach the alarm threshold setting (90° Hot Default). As an additional safety measure the heat alarm is activated if either temperature sensors reading goes 10 degrees above the threshold setting (90° Hot Default).



Left  
Sensor

Average

Right  
Sensor

Disable Temperature averaging if monitoring two separated locations.

For example a pickup where one K9 is in the cab and the other in covered bed.

**Temperature monitoring :** The left, average, and right temperatures are displayed in the primary screen; the vehicle's battery voltage is displayed periodically. When the Hot-N-Pop<sup>®</sup> Pro has detected safe conditions the HOT status light will illuminate, indicating that temperature is being monitored.

# Alarm Modes

**Pre-Alert.** During Pre-Alert the display will show a description of the unsafe condition, the control heads light will flash and a warning tone sounds for 40 seconds. Pre-Alert allows time for the K9 handler to address the condition, before the Full Alarm is activated. Review the trouble shooting section of this manual for more information.

In a temperature Pre-Alert condition, pressing the OK button to Snooze, allows the handler to adjust the climate control to a safe level. **During snooze it is vital that the K9 be monitored for any signs of heat stroke.**

Turning off the K9 Heat Alarm® will also cancel the alarm; any time the alarm is turned off the K9 must be moved to a safe controlled location.

**“FULL ALARM”** During full alarm all installed alert features are activated. The Hot-N-Pop® Pro will continue the Full Alert Alarm Mode until the temperature or other condition in the vehicle returns to a safe condition or until the [MENU] key is pressed. If a safe condition is detected by the system; the Full Alert Alarm stops and the display will periodically show a reminder note to advise the K9 Handler that an alarm has occurred.

**Clearing reminder:** To clear the alarm reminder, press [OK] while the reminder is being displayed. **Reminders will also clear when the unit is restarted.**

## Types of Alarms

**Temperature Alarm:** When an averaged temperature that is above hot set point or below a selected cold set point is sensed Hot-N-Pop® Pro goes into Pre Alert. If no action is taken and it remains so the unit will go into full alarm.

**Temperature Sensors Diagnostics:** Temperature Sensors are continuously monitored; if one of the sensors is damaged or a connection is lost, (Open or Short will be displayed in the place of left or right sensor) When a sensor is damaged the Hot-N-Pop Pro will automatically disable averaging and utilize the working sensor, periodically a warning message and beep will occur to notify the handler. If both temperature sensors are damaged, a warning message is displayed, pre alert starts, followed by full alarm activating.

**Engine Stall Alarm, Engine Stall Monitor™Option** (Purchased separately): With the stall sensor option installed and enabled in software, the Hot-N-Pop® Pro will monitor the engine. When the engine stalls “Engine Stalled/Pre-Alert Mode” is displayed allowing the K9 handler to restart the engine or press Snooze to start 10 minute snooze. If no action is taken the “Full Alarm” is activated.

**Low Battery Alarm, Vehicle Battery Sentinel™:** The vehicle's battery is monitored and the voltage is periodically displayed. The battery sentinel sets the alarm off before the battery dies. Battery Voltage below 10.5 Volts (default) will display a warning and the unit enters Low Voltage mode. The "Full Alarm" is activated for a short period of time lowering rear Windows providing ventilation for the K9. To extend available power, the alarm will activate again every few minutes as long as there is enough battery power.

**Self Diagnostics:** The Hot-N-Pop Pro continuously monitors its internal systems. If a detectable problem exists that would prevent the system from operating properly the system will go into Full Alarm mode.

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**\*\*\* It is important to remember that, while every effort to monitor the system is taken, there is no substitute for doing the Weekly tests outlined in this manual. \*\*\***

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## Changing Settings

### **Light Intensity Adjustment.**

The light intensity is controlled by using the arrow keys. The lights automatically dim, when the vehicle's ignition is turned OFF (press the OK key to return it to the original intensity).

**Menu Mode:** To enter menu mode, power up the Hot-N-Pop® Pro, press the [MENU] key. To view menu items press the [Down] key for the next item or the [UP] key for the previous item. To change a menu item press the [OK] key. The [DOWN] and [UP] keys let you scroll through the available settings. To choose a setting, press the [OK] key. (Saving will appear). To exit without making changes press the [MENU] key. Additional menu changes can be made or exit the menu by pressing the [MENU] key again. When returning from the menu mode, the system will enter into the selected operating configuration.

# Heat Alarm Menu Choices

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## **Heat Alarm Power**

**Default setting is "On/Off with Car"** This will turn the Heat Alarm ON & OFF with vehicles ignition, most commonly the engine and A/C are usually left ON to maintain the vehicle's interior temperature. Remove the K9 if the vehicle is off.

**Alternative Setting "Car on Manual off"** The Heat Alarm will turn ON with ignition and OFF by [Power] key. This is the safest method. The unit will automatically turn ON with the vehicle but will only turn OFF when you depress and the [Power] key.

**Alternative Setting "On/Off Manually"** The Heat Alarm will only turn ON or OFF from the Power Button.

**Alternative Setting "Off all the Time"** The Heat Alarm feature is disabled requires re-enabling through the Heat Alarm Power Menu.

**Alternative Setting "No K9 left behind"** the Heat alarm will turn on with ignition and off when ignition power is off **and** once the Door is opened to remove the K9. See user supplement sent with this option (Sold separately)

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## **"Heat Alarm Temp" Hot Set Point**

**Default setting is "90°"** The heat alarm will activate at 90° but can be adjusted from 77° to 95° as your needs require. (24°C to 32°C)

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## **"Cold Alarm Temp" Cold Set Point**

**Default setting "disabled"**. The cold alarm can be turned on and can be set between 10° to 58° as your needs require. (-12°C to 12°C)

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## **Stall Monitor**

**Default setting is "Enabled"**.

**When an optional stall sensor is not purchased this feature should be disabled.**

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## **Temperature Averaging**

**Default setting is "enabled"** so the temperatures of the both Temperature Sensors are AVERAGED thus reducing false alarms.

**Alternative Setting: "disabled"** This setting would be used if monitoring two separate locations in one vehicle (example one K9 in the bed of a pickup, and one in passenger compartment)

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## **Auto Snooze Mode**

**Default setting is "enabled"**. Auto Snooze Mode temporarily disables the Heat Alarm to allow time for the vehicle to cool down during start up.

**Alternative Setting: "disabled"**

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## **Low Voltage Set Point**

**Default Setting "10.5V"** Vow voltage can be set between 10V and 12V

## **USA or Metric**

**Default setting is "Fahrenheit" (USA)**

**Alternative Setting is "Celsius"**

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**Previous Alarms** Displays the 10 previous causes of the alarms and setting changes.

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**Serial Numbers** Displays the serial numbers of the control head and the IntelaBox. See additional information in back of manual.

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**Reset to Default** Resets all features to their factory default settings.(turns on sensor, if the sensor option was not purchased Disable it in Menu)

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## System Test

When in this menu function pressing [OK] will begin a System Full Alert Test activating the window drop, SOS Horn, Lights, and Siren. Accessories such as pager and fan will also activate. Followed by a Pixel test, that will fill all the pixels in the display, both top and bottom. Ending with a Push button test will allow testing of each of the Menu Keys. If any of these tests fail contact your installer or AceK9.com for further assistance.

(The K9 watchdog system will not activate using this feature see watchdog Manual).

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# K9 Door Popper® Operation

## Door Popper Power

The Door Popper will turn **on and off with the ignition**. (Default)

**To enable door popper with vehicle off** Alternative settings can be selected from the menu

- Alternative setting "On with vehicle and OFF manually"
- Alternative setting "On By Arming"

## Door Popper Status Light



### Pop Status Light

**Burns steady** when in park indicating door popper is ready to pop open the door

**Flashes** when in gear, will not pop the door

# Activating the K9 Door Popper®

**From Remote:** Press and hold any of the 3 buttons on the remote transmitter

**From the Hot-N-Pop® Pro Control Head:** Pressing BOTH the ▲ and ▼ keys simultaneously.

When the door popper is activated the door being popped is unlocked, followed by the latch releasing to open the door. Note the latch is released 2 times in case of obstruction to the door or latch.

*Note: if on by arming is selected* pressing the [OK] button arms the door popper until the vehicle is put in gear again.

## Popper Remote Information and Precautions

**ALWAYS keep the remote in its protective Pouch.**

The remote is small and easy to wear on a belt, lapel or conceal in another location. Attach the remote in an accessible location. Be sure that is not likely to be damaged in this location.

- The Door Popper Remote is water resistant
- 3 buttons that all pop door making it easier to pop in an emergency.
- The leather case has a protective flap that guards the buttons from accidental contact.
- The remote is tied in to the case to prevent loss of remote.
- Pop the door from over 200' feet
- Pop Safety Delay Feature minimizes the possibility of a door release from a quick bump of the remote's buttons. The system will require the remote's button to be continuously pressed for more than a second to activate the door release.

### **Battery Replacement** P# GL22-23A

Remember to replace the Door Popper Remote transmitter battery if you notice a decrease in range while conducting the weekly test. To access the battery remove the phillips screw on the back of the remote.

## Door Popper Menu Choices

### **Door Popper Power**

**Default setting is "On/Off with CAR"**, Turning on and off with ignition (Traditionally the key)

**Alternative Setting: "Off" All The Time".**

**Alternative Setting: "On/Off Manually"** so that even if the vehicle is not on the door can be popped to let the canine out. Turn off door popper manually to prevent battery drain

**Alternative Setting: "On By Arming"** This feature is the safest mode.

The Door Popper will remain dis-armed until the handler arms it. Just like the "Safety" on a firearm.

### **"On By Arming" Operation:**

When on patrol and a call or situation arises that may require the release of your K9, press the OK key and the system will attempt to arm. If you are driving, the Door Popper status light will flash and the system will arm as soon as the vehicle is put in park. When in park, the Status light will be ON solid and the Door Popper® is now armed and ready.

When you put the vehicle in gear to leave the scene, the Door Popper® will automatically DIS-Arm. You may also DIS-Arm the system by pressing the OK key.

To disable this feature, press the Menu key and with the arrow keys get to "Door Pop Power". Press OK and then with the arrow keys get to "ON-OFF with vehicle". Press OK and this setting will be saved. Exit the Menu

**IMPORTANT safety reminder:** 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.

**AceK9.com Two (2) Year Limited Warranty**

**For details visit <http://www.AceK9.com/Warranty>**

# **Weekly System Test Procedure for Hot-N-Pop® Pro**

K9 should not be in the vehicle during these tests.

Turn the system on, observe the feature settings during power up, Check the temperatures and vehicle's battery voltage.

## **K9 Heat Alarm Output Tests**

Confirm that the displayed temperatures are below the Heat Alarm Hot Set Point and the system is not in Snooze Mode. Press the MENU key to enter menu mode. Move down to the menu choice "System Test", press OK to activate all the installed heat alarm alert options. Verify that ALL the installed Heat Alarm alert accessories and options worked.

## **Temperature Sensors Test**

Turn the vehicle's climate control to the heat position to manually raise the temperature inside the vehicle. Monitor the temperatures displayed on the heat alarm and confirm that the alarm activates when the Hot Set Point is reached. Visually inspect the wiring and electronic components and confirm that the location of the temperature sensors are just outside the K9 container and not in direct sunlight and out of canine reach.

## **K9 Door Popper Tests**

Put the vehicle in PARK and confirm that the Door Popper Status Light is ON, this indicates that Door Popper is READY. Put the Vehicle in REVERSE and through ALL the DRIVE gears and confirm that the Door Popper status light FLASHES, this indicates that Door Popper is DISABLED. Lock doors. Now press the UP and DOWN keys simultaneously -or- press the button on the remote and the door should NOT Pop. Put the vehicle IN PARK, press BOTH the UP and DOWN keys simultaneously -or- press the button on the remote and the door should pop. Note: When using on by arming the door popper will disable when in gear, and enable once armed and in park. Status light functions only while arming or armed.

**IF THE ABOVE TEST FAILS** – TURN OFF Door Popper until system is repaired and all tests pass!

**Test Door Popper Remote** at a distance of 200 to 500 feet to confirm Remote's range. Visually inspect the gas spring mounts and confirm they are not binding and that the door fully opens.

## **Testing of Add on Options**

See the test procedure outlined in the options manual.

Popular add on Options

- Stall Sensor
- No K9 left behind
- Fan Kit
- Pager Module
- AceWatchDog™

Visit [www.AceK9.com](http://www.AceK9.com) for more options available.

# Trouble Shooting

## **Temperature sensors read different temperatures.**

It is normal for temperature sensors in separate locations to read slightly different temperatures due to radiant heating of the sun, and air flow patterns. Sensor placement is critical. If the difference is extreme a relocation of the sensors may be necessary.

- Sensors should be in shaded locations
- Never within 12 inches of the head liner.
- Never In front of vents or near equipment that radiate heat
- Place the 2 sensors in the same location for 5 minutes to prove their accuracy.

## **Alarms when it's not too hot or cool in the vehicle.**

A "Full" Alarm sounds the alarm states the condition that set the alarm off, this is alarm is recorded in "Previous Alarms". Previous alarms can be reviewed from the menu.

## **Stall Alarm**

- 1) If the stall sensor option is not present this is most commonly caused by a menu setting change, turning on of the stall sensor. Resetting the System to default will turn on the sensor if a sensor is not installed, disable the stall sensor from the menu.
- 2) Check with your installer for assistance on the stall sensor placement, sensor is usually located by the alternator.

## **Aux Input Error Alarm**

Auxiliary input Alarm occurs when the alarm senses a signal from the 3 pin connector. This connector is most commonly used for smoke or carbon monoxide detectors.

- A bad ground on a detector.
- The carbon monoxide detector reaches the end of its life expectancy.

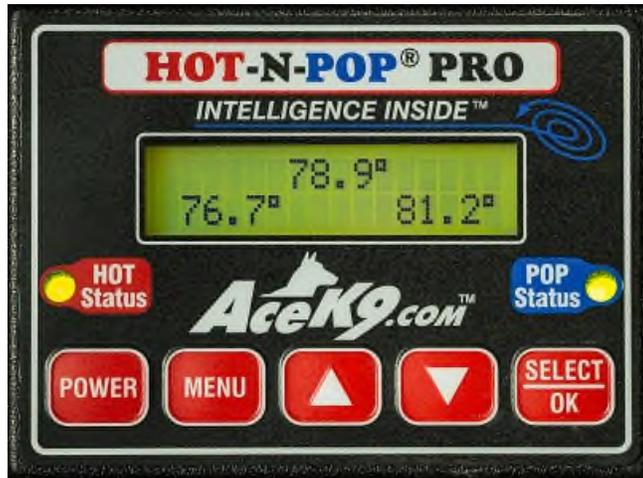
## **No display, Control head beeps and flickers**

**If when ignition is turned on CHECK at the Control Head Cable is plugged in.**

- Check the battery power connections from the intelabox/PR 40A fuse, fuse holder and ground wire from the Proctive Relay Module.
- Check the control head cable, Any straight through, Cat 5 Csble Network cable can be used

## **Control head powers up and turns off immediately**

Check Heat Alarm Menu setting, if it is set to "ON/Off With Car", Check ignition connection at the Proctive Relay Module.



## Serial Numbers

Record your serial Numbers Here

**Control Head (display) BC** \_\_\_\_\_  
**IntelaBox (wired box) BI** \_\_\_\_\_  
**Door Popper Remote** \_\_\_\_\_

### To retrieve serial numbers from the Menu

- 1 Press Menu
- 2 Use arrow keys to locate "serial numbers" from the menu
- 2 Press (OK)
- 3 The serial number for the control head will display
- 4 Press any button to see IntelaBox serial number

Note The first time a System test is done the serial number is recorded in the head.