AceK9™

A division of Radiotronics, Inc.

Model HP-5020

HOT-N-POP® PRO
INTELLIGENCE INSIDE™

K9 Hot-N-Pop Pro
Model #: HP-5020

HOT Status   AceK9.com™   POP Status

POWER   MENU   ▲   ▼   SELECT/OK

User Manual

Serial Number BIY1024 and UP
With single button audible remotes

Contents

Introduction

The Hot-N-Pop® Pro is 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. *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:
o AceWatchDog System - Smart Phone Monitoring System & App.
o E.S.M. Engine Stall Monitor™ – Alerts of Engine Stall BEFORE the vehicle's interior gets too hot or cold.
o No K9 Left Behind - K9 removal reminder system
o Smoke Detector
o 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– The remote must be pressed for .3 seconds or 3 quick presses to release the deployment door. A tone will also sound to alert you that the remote is activated.
✓ Door Popper Stopper™ – Extremely important neutral safety feature that prevents the door from opening when the vehicle is in gear.
✓ A Gas Spring – Quickly pushes open and holds the door to allow the canine an unobstructed release.
✓ External Antenna – Enables long range reliability.

Overview of Settings

Factory default settings are based on keeping the K9 safe in modern vehicles. Carefully consider how the vehicle operates before you change the setting to your needs. See menu choices table below.

K9 Heat Alarm® Operation

Warning: **Before changing this setting to turn off with the vehicle, have a good understand of how the vehicle's ignition power operates.   This setting should not be changed if the vehicle automatically turns itself off or any accessory turns off the vehicle's ignition power.**

Default Menu Choice Setting "Car ON Man Off'.

Overview: This setting turns the alarm on with vehicle, requiring the handler to press the POWER button to turn the alarm off. The vehicles climate control should be set to maintain a safe environment for the canine. The canine should not be left unattended in the vehicle with the climate control off.

Default Settings

K9 Heat Alarm® Power:	Car On/Manually Off.
Door Popper Power:	Car On/Manually Off.
Hot Set Point:	90°
Cold Set Point:	Disabled
Stall Sensor	Disabled (if purchased Enable from Menu)
Auto Snooze Mode:	Enabled
USA or Metric	Fahrenheit
Temperature Averaging	Enabled

- The heat alarm will turn on with the ignition, and power off by pressing the Power Button.
- Snooze Mode, at start up if the temperature is over the hot set point. The alarm will not activate during the 10-minute snooze. See page 6 for more detail.

Heat Alarm and Door Popper Power Menu Choices

Heat Alarm Power	Door Popper Power	Heat Alarm Power	Door Popper Power
Default Setting		**Off all the time setting options**	
Car ON Man OFF	Car On Man Off	Off all the time	Off all the time
Car On Man Off setting options		Off all the time	Car On Man Off
Car ON Man OFF	Off all the time	Off all the time	On all the time
On Off Manually setting options		Off all the time	On/Off Manually
On off Manually*	On/Off Manually	**See Note below	
No K9 Left Behind setting options		**On/Off Car Setting Options**	
No K9 LeftBehind	Car On Man Off	ON/OFF with CAR	ON/OFF with CAR
No K9 LeftBehind	Off all the time	ON/OFF with CAR	On/Off Manually
*Door Popper turns off Heat Alarm		ON/OFF with CAR	Off all the time
*On off manually will follow door popper setting **It is not recommended to have K9 in Vehicle with Heat Alarm off			

Operation Overview

Any time the vehicle is off and the K9 is left in vehicle the windows should be open and K9 alarm set to stay on with vehicle off. Frequent checks of the of K9 should be made.

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. If at the end of the Snooze period an unsafe condition exists, the Heat Alarm will enter Pre-Alert. During Pre-Alert snooze can be manually restarted (By pressing OK). Only 3 snooze periods are allowed.
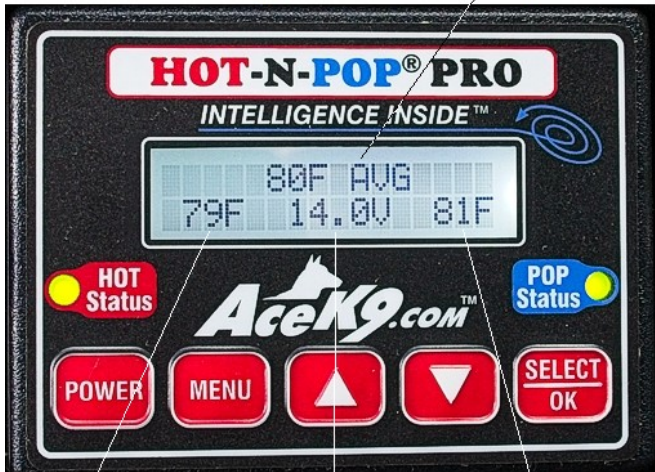
Note: During Snooze, the handler is responsible to monitor the K9 for any signs of heat stroke.

Dual Temperature Sensor Averaging™: The individual temperature sensor readings are displayed along with the average temperature. This enables the Hot-N-Pop® Pro to obtain a much more accurate reading of the vehicle's 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 temperature sensor readings must reach the alarm threshold setting (90° Hot Default). The heat alarm is activated if either temperature sensor reading goes 10 degrees above the "Heat Alarm Temperature" setting.

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.
Note: Sensors should not be within 12" of the headliner, in direct sunlight, or directly in front of an AC vent, See install manual.

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

Alarm Modes

"Pre-Alert". Pre-Alert allows time for the K9 handler to address the unsafe condition before the Full Alarm is activated. During Pre-Alert, the display will show a description of the condition, the control head lighting will flash, and a warning tone sounds for 40 seconds. 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 removed from the vehicle to a safe 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 [POWER] key is pressed, the K9 should be moved to a safe location.

If during a Full Alarm a safe condition returns; (for example the windows open and cool air comes in) 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 or turn off and restart the system.

Types of Alarms

Temperature Alarm: When an averaged temperature above hot set point or below cold set point is sensed the Hot-N-Pop® Pro goes into Pre-Alert. If no action is taken 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, averaging will be replaced by "Sensor ERROR!" ("Open" or "Short" will be display in place of temperature on the left or right side) The Hot-N-Pop Pro will automatically disable averaging and utilize the working sensor. 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): Not for use with Hybrid, stop start technology or vehicles idler timers.
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 turn off the vehicle and restart the engine, or press [OK] to start a 10-minute snooze. If no action is taken the "Full Alarm" is activated. If this occurs when the vehicle is running, check the sensor placement. Turn off the vehicle and restart to reset the sensor.

Low Battery Alarm, Vehicle Battery Sentinel™: The vehicle's battery is monitored, and the voltage is 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 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.

AUX Input Error:
When an AceK9 Smoke Detector or Carbon Monoxide Detector Activates. the Alarm will sound, remove the K9 from the vehicle immediately. Address the problem accordingly. See the manuals that were included with the Smoke or Carbon Monoxide Detector.

Control Head Not Seeing Data:
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 attempt to reboot, if the reboot fails the alarm goes into Full Alarm Mode.

See Trouble Shooting section at the end of the manual.

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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 of the status lights and the display's backlighting is controlled by using the up and down arrows.

When using a setting that allows the display to stay on with ignition off the lights automatically dim when the vehicle's ignition is turned OFF.

When in bright light, with the display dim, the status lights may not be visible, push the up arrow to brighten the display.

Menu Mode: To enter the menu press the [MENU]. To scroll thru the menu items, press the [UP] or [Down] Arrow. To select a menu item, press the [OK].

Heat Alarm Power

The engine and climate control in the vehicle should be left ON to maintain the vehicle's interior temperature. If the climate allows the K9 to be left in the vehicle with the climate control off and the windows with guards should be left open and K9 alarm set to stay on with vehicle off. Frequent checks of the of K9 must be made. It is always best to remove the K9 any time the vehicle is off.

! Heat Alarm Power Settings Safety Notice!

Before changing this setting to turn off with the vehicle, there should be a good understanding of how the vehicle's ignition (accessory) power operates. This setting should NOT be changed to *"On/Off with Car"* if the vehicle or any accessory automatically shuts ignition power off.

Changing Heat Alarm Power Settings

Choose Heat Alarm Power from the Menu, press the [OK].
Scroll through the available choices using [DOWN] or [UP] Arrows.
Save a setting by press the [OK].
To exit without making changes press [MENU].

Default setting is "Car on Manual off"

The Heat Alarm will turn ON with ignition and OFF by pressing [Power]. This is the safest method. The unit will automatically turn ON with the vehicle but will turn OFF when you press [Power].

Alternative Setting *"On/Off with Car"* This will turn the Heat Alarm ON & OFF with vehicles ignition*. See safety notice above.*

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

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)

"Heat Alarm Temp" Hot Set Point - *Default setting is "90°F"*

The heat alarm will activate at 90° but can be adjusted as your needs require.
Press [OK] to change
Use the [DOWN] or [UP] arrows to choose a temperature between 77°F to 95°F (24°C to 32°C) See menu choice USA or Metric to change to Celsius.
To save the setting, press the [OK].

"Cold Alarm Temp" Cold Set Point - Default setting *"disabled"*.

Press [OK] to change
Use the [DOWN] or [UP] arrows to choose between 10°F to 58°F (-12°C to 12°C)
To save the setting, press the [OK].
(note the windows will not drop if the temperature is below the freezing point).

Stall Monitor

The [DOWN] or [UP] arrows let you choose *"Enabled" or "Disabled"*
Default setting is "disabled".
Press [OK] to change
If a stall sensor is installed choose "Enabled", Press [OK] to change
Use the [DOWN] or [UP] Arrows to choose, press the [OK] to save.

Temperature Averaging. *Default setting is "enabled"*

Temperatures of the both temperature sensors are AVERAGED 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)
Press [OK] to change
Use the [DOWN] or [UP] arrows to choose "disabled"
Press the [OK] to save.

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"
Press [OK] to change
Use the [DOWN] or [UP] Arrows to choose "disabled" (Not recommended)
Press the [OK] to save.

Low Voltage Set Point. *Default Setting*

"10.5V" Low voltage can be set between 10V and 12V
Press [OK] to change
Press the [UP] or [Down] arrows to pick a voltage, press [OK] to save.

USA or Metric. *Default setting is USA* Fahrenheit

Press [OK] to change
To change to Celsius, use the [UP] or [DOWN] arrow to choose Metric, press [OK] to save.

Previous Alarms Displays the 10 previous causes of the alarms and setting changes. Press [OK] and then use the [DOWN] arrow to view previous events.

Serial Numbers
A system test captures the serial number of the IntelaBox.
Run a test if you do not know if one has been done in the past (see below).
Press [OK] to display the serial number of the Control Head press the [Down] arrow to view the IntelaBox serial number.

Reset to Default pressing [OK] resets all features to their factory default settings. (turns off the stall sensor and changes the Heat Alarm power setting to "Car on Manual off"). During the reset a system self-check will Run, and the system will reboot.
Self Diagnostics: The Hot-N-Pop Pro continuously runs System Self Checks to 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.

System Test
Pressing [OK] will begin a System Full Alert Test activating the window drop, SOS Horn honk, turn on Lights and Siren. Accessories such as pager and fan will also activate, if there is an AceWatchDog attached it will follow the test with "system test" text to the handler's phone[‡]. 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 Keys in the control head. If any of these tests fail contact, you service provider or AceK9.com for further assistance.
‡AceWatchDog Has to be activated for this test to work.

AceWatchDog Option information
The AceWatchDog is a add on to the Hot-N-Pop Pro

When the AceWatchDog System is connected to the Hot-N-Pop Pro the temperature screen will alternate with the AceWatchDog information screen. The screen shows the cellular signal percentage and the serial number of the AceWatchDog. This number is also the activation code that you use to register. To activate your AceWatchDog go to acelogin.com on your web browser.

K9 Door Popper® Operation

Door Popper Power *Default setting* is "Car on Manually off"
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 the Hot-N-Pop® Pro Control Head: Press and hold BOTH the ▲ and ▼.
From Remote: Press the button on the remote transmitter for 0.3 Second or 3 rapid presses in 0.3 second also deploys the door.
While the Remote is transmitting it sounds a high-pitched tone.

When the door popper is activated the deployment door is unlocked, the latch is released, and the gas spring pushes the door open.

Popper Remote Information and Precautions
ALWAYS keep the remote in its protective Holster.
The remote is easy to wear on a vest molly, lapel or conceal in another location. Attach the remote in an easy to reach location, that is not likely to be damaged or unintentional contact with objects.
• Door Popper remote is water resistant.
• Includes a Kydex holster designed to prevent accidental loss.
• A recessed button reduces the likelihood of an unintentional press.
• While transmitting the Door Popper remote emits a high-pitched tone.
• If the remotes battery is weak, the tone no longer sounds. Information on replacing the battery on following page.
• The remote will pop the door from over 200 feet away.

Battery Replacement
Replace the 23A battery with the door popper off.
Change the Battery every 6 months or when no tone is heard to ensure optimal remote operation. To access the remove the remote from its holster, remove the Phillips screw on the back of the remote.

<u>Door Popper Menu Choices</u>

Door Popper Power

See Page 3, for information on Heat Alarm and Door Popper choices.

Default* setting is *"Car On/Man Off"

Turns on with the car, must be turned off by pressing [Power]

Safest method when used in conjunction with Heat Alarm Power setting *"Car On/Man Off".*

Alternative Setting: *"On/Off with Car"*

Turns on and off with the car.

Alternative Setting: *"On/Off Manually"* Turns on and off from [Power]

Turn off door popper manually to prevent battery drain and to avoid an accidental deployment.

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.

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

K9 should not be in the vehicle during these tests.

Turn the vehicle on, with the Hot-N-Pop Pro powered up, check the temperatures and vehicle's battery voltage. Battery Voltage should be above 12.3V at start up. Begin the tests with the Temperature in the vehicle at a comfortable level at start of this test procedure.

Visually inspect the system temperature sensors, be sure they are still attached in their mounting pads in their location out of reach of the canine, in good airflow entering transporter, not in direct sunlight and not close to the roof of the vehicle.

K9 Heat Alarm Output Tests

Press the [MENU] 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

With the temperature in the vehicle at a comfortable level, and the hot status will be on indicating that the K9 Alarm is ready. Turn the vehicle's climate control to the heat position to raise the temperature inside the vehicle. Monitor the temperatures displayed on the heat alarm. When the temperature reaches the alarm's set point the display flashes and a warning tone will alert you of the danger. When the alarm enters "Full Alarm" mode, verify that ALL the installed alert accessories and options worked.

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 the vehicles doors put the car in gear. Now press the UP and DOWN Arrows simultaneously then use the remote, the door should NOT Pop.

Put the vehicle IN PARK, test from the control head Arrows the door should "Pop" Open –then repeat the test using the remote.

IF THE DOOR "Pops" with the vehicle in gear – TURN OFF Door Popper until system is repaired and all tests pass!

If the Door Popper Pops from the head and not the remote Replace the Battery with a 12V A23 Battery.

Test Door Popper Remote at 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 manual included with the option.

- No K9 left behind
- Fan Kit
- Pager Module

- AceWatchDog™
- Smoke Detector
- Carbon Monoxide Detector

Visit 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
- To verify the accuracy TEMPORARILY Place the 2 sensors in the same location for 5 minutes. The temperatures should read within less than a degree of each other.

Alarms when it is not too hot or cool in the vehicle.

A "Full" Alarm sounds the alarm displays 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 when vehicles running

1) If the stall sensor option is not present this is commonly caused by a menu setting change, turning on of the stall sensor. Disable the Stall Monitor from menu.
2) If a stall sensor is installed check the placement, See the install manual or contact the installer for assistance with the stall sensor placement.
3) The Stall sensor should not be used with vehicles with a start/stop technology, Idle timers, or in hybrid vehicles.
4) Vehicle should be started as soon as ignition is turned on.

Aux Input Error Alarm this alarm occurs when an attached smoke or carbon monoxide activates. If Smoke is present or the carbon monoxide detector is sounding remove and secure the K9.

- An alarm can occur if the detector has a poor connection to ground.
- A carbon monoxide detector reaches the end of its 3-year life expectancy
- The detector is damaged or blocked by dust (detectors should be cleaned regularly in dusty environments)

No display, Control head beeps and flickers

- Check the battery power conections from the IntelaBox and Protective Relay Module, The 40A fuse should be connected directly to the main starting battery, Check that the ground wire from the Proctive Relay Module is attached at a factory ground point.
- Check the control head cable and the connectors for damage or corrosion, If the cable appears damaged a straight through network cable (Eithernet or Cat5 or higher Cable).

Power UP/Down Problems

Before changing power setting to turn off with the vehicle, there should be a good understanding of how the vehicle's ignition (accessory) **power operates.   This setting should not be changed if the vehicle automatically shuts itself off or if any accessory is used that would turn off the vehicle's ignition power.**

The K9 Alarm powers up and turns off.

1) Heat Alarm menu choice "Off All The Time" has been selected.
2) With Heat Alarm menu choice "ON/Off with Car"
   a) Red/Yellow wire at Protictive Relay Module PRM is not connected to switched ignition power
   b) IntelaBox's gray options cable is not pluged into the PRM.
   c) Check the Control Head cable from the Head to the Intelabox for signs of damage. If the cable appears damaged a straight through network cable (eithernet, Cat5 or higher Cable).If an AceWatchDog is attaced check it cable and connectors

K9 Alarm or Door popper powers up but does not power down when the key is turned off.

The default menu choice is Car On/Manually Off. These setting can be changed see page 6 for "Heat Alarm Power" and page 10 for "Door Popper"
Review important safety notice on page 3.

K9 Alarm powers off Instantly with the key in "No K9 Left behind" or with a manual off setting.

1) Check the Menu Setting
2) Check that battery power is connected directly to the main battery (not at the secondary battery) Battery power should NOT be connected a switched to Ignition source.

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.