K9Caller™ firmware v56

Configuration Manual

K9SAFETY
A Better Breed of Systems™

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Selecting Features and Connections.

In the following section we will identify the connections and programming for the most common system configurations that are being used by our K9Caller customers.

The two most common uses of the K9Caller are found in but not restricted to Police Patrol K9 Vehicle (Professional Handler) & Privately Owned Vehicle (Dog Enthusiast) .

The K9Caller can be configured to operated in a number of fashions depending on the user or agencies needs. Some of the system's features can be selected from the remote at any time while others are selected through the programmable branches. Your preferences may also require the system to have some of the connections wired to the vehicle in a particular fashion or with optional modules to achieve the desired results though most of the connections are standard from vehicle to vehicle. Some of the features that would require specific wiring or optional modules include connecting any of the three aux channel outputs, Aux1, Aux2 and Trunk/ Door pop, or window modules, fans, and cellular messenger. Optional hardware is typically necessary to achieve door pop functionality (door pop kit upgrade) which will receive a command from the system to pop open the door.

It is helpful to review the options available in the programmable branches to make the best determination as to the features that are desired and the wires or options that will be connected on your vehicle.

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.

See Branch Programming for details

Selecting Features and Connections Continued.

Police Patrol K9 - Professional Handler

This is the most common configuration for police agencies across the country. By default the system comes programmed to operate in this fashion.

Features

The K9 systems will automatically turn on and monitor for temperature whenever the vehicle arrives at a destination. If the temperature inside the vehicle reaches the start temperature, the engine will start allowing the AC to operate. If the vehicle reaches the alert temperature, the vehicles horn will honk and an alert message will be sent to the LCD remote. If the optional window module is installed, the windows will roll down during hot temperature alert. If the optional window fan is installed, the windows fan will turn on during hot temperature alert. The remote can also be used to manually turn on/off the car alarm and lock and unlock the doors. If the door pop kit is installed the LCD or 1way remote can be used to pop the door. Aux1 can be wired with an optional relay to pop the trunk open.

Another feature is the starter disable/starter anti-grind which requires the connection of the included relay and 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.

Note, police K9 vehicles normally have fixed inserts and window screens that would prevent the dog from jumping out of the window and would also keep the vehicle secure from intrusion.

Privately Owned Vehicle -Dog Enthusiast)

This is the most common configuration for users of privately owned vehicles that have a canine companion travel with them. The default settings are typically changed in branch programming to have manual K9 system activation selected.

Features

Consumer installations can be slightly different in nature as most consumers do not want windows to roll down automatically as this could put their canine at risk of injury or their vehicle at risk of unlawful entry. This simply means that an optional window drop module would not be installed on the vehicle. The more likely option would be the bidirectional window controller that can be connected to the aux outputs to remotely roll up and down the windows. Many consumer vehicles are equipped with additional features such as automatic door sliders and rear hatch or trunk pops that can also be connected to one of the three aux outputs.

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.

Programming Branch Description Explained

There are 35 installer programmable options that affect the way the system will operated. 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.

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.

This warranty is void if the products or parts have been subject to improper installation, misuse, accident, negligence, or unauthorized service. This warranty is void if the unit(s) have been modified or if the unit(s) are used in a fashion not intended by K9Safety. This warranty does not cover service or labor charges that may be incurred during replacement or repair.

K9Safety will not be responsible for expense, loss, or damage caused indirectly or directly by the use of K9Safety products, or any other cause.

No person, dealer or agent is authorized to make modifications or additions to this warranty or to assume any other liabilities on behalf of K9Safety.

Removing or defacing serial numbers or other identification, or accessing internal components will void the warranty stated above.

The rights granted to you by this warranty may be supplemented or restricted by state law.

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