



## USER'S MANUAL

System Serial No. \_\_\_\_\_



## **TABLE OF CONTENTS**

<b><u>SECTION</u></b>	<b><u>PAGE</u></b>
System Features	4
Charging the Remote Control/Pager	5
Starting Your System	6
Accessing System Menu	8
Programming Door Opener	9
Programming Door Opener/Window Drop	9
Programming Heat/Temp Alert Function	10
Becoming Familiar w/Interactive Intelligent Remote	11
Powering On Your Remote Control/Pager	12
High Temperature Alert Screens & Signals	13
Vehicle Power Monitor	14
Additional Features & Information	15
Remote Control/Pager Notifications	16
Product Care & Service	17
Warranty	18
Disclaimer	19

## ***RAY ALLEN F<sup>1</sup> Tactical Deployment System With Temp Alert and Pager - Features***

### **Heads Up Display (HUD)**

- In Vehicle Independent Temperature Read-Outs
- Displays System Status: bold “D” (K9 Deploy Ready), bold “H” (Heat/Temp Alert Ready) and “SYS OK”
- Fully User Programmable Non-Volatile Memory (System retains your programmed settings if disconnected from vehicle battery)
- Fan Control Built Right In (Off, Low, Med, High)
- Plug to recharge Remote/Control Pager — wire pig-tail included

### **Interactive Intelligent Remote Control/Pager (RCP)**

- No Larger Than a Typical Pager
- K9 Deployment at the Touch of a Button — Will Only Function with Vehicle in Park or Neutral (if Neutral Safety Function Enabled)
- Independent Temperature Read-Outs (Real Time)
- Reset Capability from Remote Control (In the event of a HEAT/TEMP or VEHICLE POWER Alert)
- Signal Strength Indicator Bar
- Battery Charge Level Indicator Bar
- “Out of Range” Text Warning
- Deployment confirmation - remote will beep twice and vibrate once to acknowledge Deployment activation
- Backlit Display
- Built In Pager (Tone and Vibration for HEAT/TEMP or VEHICLE POWER Alert)
- Tone Mute Capability
- Fully Rechargeable (Wall-plug Charger Included)
- RCP can also be charged from the HUD – wire pigtail included
- Custom Belt Mounted Remote Control Holster Included

### **Control POD**

- “Brain-box” of the system in a small case
- Can be easily mounted anywhere in your vehicle
- Positive-lock wire harnesses – no more loose wires

## Charging the Remote Control/Pager

After unpacking the System we recommend that the installer immediately charge the Remote Control/Pager. If this has not been done, the procedure for charging the Remote is:

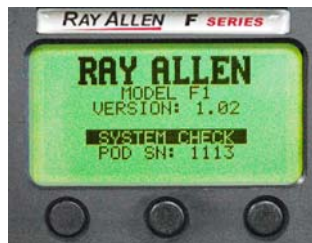
1. Locate the Remote Control and Remote Control Charger.
2. Plug the Remote Control Charger into a 110v 60hz receptacle (standard wall plug).
3. Plug the Remote Control Charger into the charging port on the side of the Remote Control.
4. The message *CHARGING BATTERY* will appear on the LCD screen of the Remote Control/Pager along with a charging progress meter.
5. When fully charged, the CHARGING BATTERY message will no longer be displayed.
6. The Remote Control/Pager **does not** need to be turned off when charging.

**NOTE: IF THE REMOTE CONTROL BATTERY IS COMPLETELY DEAD IT MAY TAKE A FEW MINUTES BEFORE THE CHARGING SEQUENCE BEGINS.**

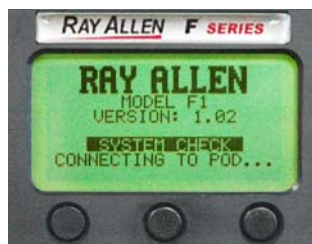
**NOTE: WE HAVE PROVIDED YOU WITH A LONG-LIFE REMOTE CONTROL BATTERY. DEPENDING ON TEMPERATURE, IT CAN TAKE OVER 2 HOURS TO FULLY CHARGE THIS DEVICE. FOR YOUR CONVENIENCE, THE REMOTE CONTROL/PAGER IS PROTECTED BY OVER-CHARGE CIRCUITRY THEREFORE IT CAN REMAIN ON THE CHARGER FOR LONG PERIODS OF TIME WITHOUT FEAR OF BATTERY DAMAGE.**

## Starting Your System

To Power-up the system, hold down the center button located on the Heads Up Display (HUD). Release the button when the LCD changes. The system will perform a complete self diagnostic and you will see the following on the display:



Note that Serial Number (POD SN: #) appears here.



System Check displays events taking place.



Model and Version are displayed throughout diagnostic routine.

## Starting Your System (cont.)

Once the diagnostic is complete, the HUD will show displays similar to this:



*Initial Display – Default Delay 1 Minute*



*Display After 1 Minute Delay – Ready to Go*

After allowing for the 1 minute delay (default), the display will show two independent temperature readings, a bold **D** (K9 Deploy Ready), a bold **H** (Heat/Temp Alert Ready) and SYS OK. Along the bottom are BL: (Backlight), SET/PWR (menu access and power on/off), and FAN: 0-OFF, 1-LOW, 2-MED, 3-HIGH).

**NOTE: THE DEPLOY K9 FUNCTION OPERATES ANY TIME THE SYSTEM IS TURNED ON AND THE VEHICLE IS IN PARK OR NEUTRAL – THIS FUNCTION IS NOT AFFECTED BY THE HEAT/TEMP ALERT DELAY.**

### Adjusting the Backlight

To turn on and adjust the display backlight (BL), press the left button once to activate. There are three (3) levels of backlight adjustment (1, 2 or 3 — BL:0 is off).

### Built In Fan Control

If you have chosen to integrate a fan with your system it is controlled by pressing the right button on the HUD. There are three (3) speed adjustments available for your K9's comfort (1-LOW, 2-MED, 3-HIGH — 0 is OFF)

### Important Information

Your system uses non-volatile memory. That means even if power is lost for long periods of time your user programmed settings will be retained. This is an especially handy feature should your vehicle need to have the car battery disconnected during maintenance.

**NOTE: YOUR SYSTEM IS POWERED BY DIRECT CONNECTION TO THE VEHICLE BATTERY AND WILL REMAIN ON AND FUNCTIONING EVEN WHEN THE VEHICLE IS TURNED OFF. THEREFORE WHEN YOUR VEHICLE IS NOT IN SERVICE AND/OR YOU NO LONGER REQUIRE THIS SYSTEM TO FUNCTION, YOU MUST MANUALLY TURN THE SYSTEM OFF (PRESS AND HOLD THE CENTER BUTTON OF THE HUD).**

## Accessing The System Menu

Access the particular system you wish to program by first pressing the center SET / PWR button on the HUD one (1) time (do not hold the button down). This brings you to the first level of your System Menu — SETUP.



Pressing SELECT one (1) time to access the DOOR OPENER menu. There are two (2) options in this menu.



### **\*EXCLUSIVE PROGRAMMABLE FEATURE\***

***The system has the ability to roll down either or both of the rear windows when using Remote Control Deployment. This is especially handy for situations where a secondary suspect is blocking the deployment door.***

***NOTE: TO TAKE FULL ADVANTAGE OF THIS FEATURE THE DEPLOYMENT DOOR MUST NOT HAVE A WINDOW GUARD INSTALLED.***



## Turning Door Opener On/Off



With the cursor on DOOR OPENER, press the SELECT button one (1) time. The cursor will move to the right (as shown above) and highlight the on/off feature. Press the DN or UP button to toggle either ON or OFF. When the desired selection is displayed, press and hold the SELECT button until the cursor moves back to DOOR OPENER (as shown below).



## PROGRAM THE WINDOW DROP

Press the DN button to move the cursor to WINDOW DROP. Press the SELECT button one (1) time to move the cursor to the right. The system allows four (4) WINDOW DROP options when used with DOOR OPENER. These options are OFF (neither window will drop when the K9 is deployed), LEFT, RIGHT or BOTH and will scroll using the UP or DN buttons. When the desired selection is displayed, press and hold the SELECT button until the cursor moves back to the left.

To exit DOOR OPENER menu, press and hold the SELECT button to return to the SETUP menu.

To DEPLOY your K9 simply press the button on the back of the Remote Control/Pager.

**NOTE: THE DEPLOY K9 FUNCTION OPERATES ANY TIME THE SYSTEM IS TURNED ON AND THE VEHICLE IS IN PARK OR NEUTRAL (OR AT ALL TIMES IF THE NEUTRAL SAFETY FEATURE WAS BYPASSED) – THIS FUNCTION IS NOT AFFECTED BY THE HEAT/TEMP ALERT DELAY.**

## Programming Temp Alert Function



In the SETUP Menu, place the cursor on HEAT/TEMP ALERT then press the SELECT button one (1) time.



By manipulating the UP, DN, SELECT/XIT buttons as you did before, the HEAT/TEMP ALERT menu allows you to:

### Turn on/off the HEAT/TEMP ALERT SYSTEM

Select **TEMPERATURE MODE: F (Fahrenheit) or C (Celsius)**

Select the **TEMPERATURE** at which you wish the system to **ALERT**

70-99 F or 21-37 C

### Select the ALERT DELAY

This feature prevents the Temp Alert System from activating when the vehicle is first started and the air conditioning hasn't yet cooled the interior of the vehicle — one (1) to ten (10) minutes selectable.

**NOTE: THE DEPLOY K9 FUNCTION OPERATES ANY TIME THE SYSTEM IS TURNED ON. THIS FUNCTION IS NOT AFFECTED BY THE TEMP ALERT DELAY.**

**NOTE: FOR INFORMATION REGARDING THE ADVANCED MENU, PLEASE SEE THE INSTALLATION MANUAL.**

## Becoming Familiar With the Interactive Intelligent Remote Control/Pager



*Front*

*Back*

The front of the Remote Control/Pager (RCP) houses the Interactive Display as well as the MUTE, ON-OFF buttons. The back of the RCP houses the recessed “Deploy K-9” remote control deployment button. Located on the side is the RCP charging port (not shown).

The RCP is designed to be carried on a law enforcement duty belt using the supplied custom holster. The RCP should be carried with the DEPLOY K-9 Button facing outward (away from the user). The supplied holster has a molded hole that will align perfectly with the DEPLOY K-9 button.

The DEPLOY K-9 Button is recessed to help eliminate the accidental deployment of the K-9. To activate this function you must push the tip of your finger into the hole on the holster or into the depression on the back of the remote if the unit has been removed from the holster.

There are two ways you can recharge your RCP. This system includes a wall-plug charger for this purpose. But there also is a pigtail wire included with the system that allows you to connect your RCP with the HUD for the purpose of charging the Remote at any time — your system does not need to be turned on. Just insert one end of this pigtail into the plug on the bottom of the HUD (just below the left button) and insert the other end into the charger port on the side of the RCP. Your Remote does not need to be turned off to be recharged.

**NOTE: THE HOLSTER HAS BEEN CONSTRUCTED OF A SPECIAL POLYMER THAT CAN BE CUT. THIS WILL ALLOW YOU TO ENLARGE THE HOLE, IF NECESSARY, TO ACCOMMODATE LARGER FINGERS TO ACCESS THE DEPLOY K-9 BUTTON THROUGH THE HOLSTER.**

## Powering On Your Remote Control/Pager (RCP)

**NOTE: THE HUD MUST BE POWERED ON BEFORE PROCEEDING. BE SURE THE REMOTE CONTROL/PAGER (RCP) HAS BEEN FULLY CHARGED PRIOR TO ITS FIRST USE.**

To turn on the RCP, press and hold the ON/OFF button - release the button when the display begins to respond. The RCP will go through a short diagnostic routine before making two short vibrations signaling connection with the system.



For Reference Only — Actual Display size .80 X 1.25 inches

### RCP Display Properties (\*Features Exclusive to Ray Allen)

**\*Sensor 1 & 2:** Two Independent Temperature Readings

Displays real time temperature from inside the vehicle.

**\*Left Vertical Bar:** Signal Strength - Between RCP and Vehicle

Provides instant verification of signal integrity and strength.

**\*Right Vertical Bar:** RCP Battery Charge Level

Be assured you have the power for communication — and to take action.

**\*System Condition:** Deploy & Heat/Temp Systems Functioning

Bold **D** & **H** verify these systems are online and ready to respond.

**\*System Status:** SYS OK

The RCP and the vehicle Control POD are 100% all systems go.

**MUTE:** To MUTE the RCP beeper

When MUTED, the vibration alert will still function to inform you of HEAT/TEMP ALERT SYSTEM activation and other features.

**BL/PWR:** Backlight/Power

Press once to turn on the Backlight (remains lit approximately 15 seconds then returns to normal). Press and hold to Power-Off the RCP.

**\*Deployment Acknowledgement:** The Remote will beep twice and vibrate once to confirm Deployment activation.

**\*Additional Exclusive Feature:**

The RCP will inform you when you are out of range of the vehicle by displaying an OUT OF RANGE message on the LCD. When you come back into range, the display will once again show system information. The HEAT/TEMP ALERT System in the vehicle will function normally regardless of this signal strength.

## High Temperature Alert Screens and Signals



The above message is displayed on the HUD during a high temperature ALERT. To stop the ALERT, press the RESET button. This will put the system into Standby Mode for a period of time equal to the ALERT DELAY you programmed into your system.

**NOTE: THE RAY ALLEN F<sup>1</sup> TACTICAL DEPLOYMENT WITH TEMP ALERT SYSTEM AND PAGER WILL NOT LOWER THE WINDOWS OR ACTUATE THE VEHICLE LIGHTS AND HORN. THE TEMP ALERT SYSTEM WILL TURN ON THE OPTIONAL FAN IF THE FAN IS INTEGRATED INTO THE SYSTEM.**



Your RCP will alert you of a high temperature ALERT in a variety of ways. When the RCP first receives the alert, it will alternately vibrate and beep, while the display shows "ALERT! — HIGH TEMP ALERT". You can reset the system remotely by pushing the RESET (ON/OFF button) once. The system will enter Standby Mode as noted above. This allows you to return to your vehicle and resolve the issue while silencing the ALERT on the RCP.

You may also silence the beeper function of the RCP by pressing the MUTE button.

## Vehicle Power Monitor



The above message is displayed on the HUD during a VEHICLE LOW VOLTAGE condition. This ALERT is caused by the battery voltage falling below the recommended level for normal operation. The voltage threshold is hard-coded into the system and cannot be altered. The cause of a VEHICLE POWER ALERT can be a stalled engine, over-taxing the vehicle's electrical system, a faulty battery or alternator, and/or many other issues.

The system will send an immediate signal to the RCP alerting you remotely of the condition. To stop the ALERT, press the RESET button. This will put the system into Standby Mode for a period of time equal to the ALERT DELAY you programmed into your system.

**NOTE: THE RAY ALLEN F<sup>1</sup> TACTICAL DEPLOYMENT TEMP ALERT SYSTEM WITH PAGER WILL NOT ACTUATE THE VEHICLE LIGHTS AND HORN OR TURN ON THE OPTIONAL FAN IN THE EVENT OF A VEHICLE POWER ALERT.**



Your RCP will alert you of a VEHICLE POWER condition in the same manner as a HIGH TEMP ALERT. The RCP will alternately vibrate and beep, while the display shows "ALERT! — VEHICLE POWER". You can reset the system remotely by pushing the RESET (ON/OFF button) once. The SYSTEM will enter Standby Mode. This allows you to return to your vehicle and resolve the issue while silencing the ALERT on the RCP.

You may also silence the beeper function of the RCP by pressing the MUTE button.

## **Additional Features and Information About Your TEMP ALERT SYSTEM™**

Should a HIGH TEMP ALERT™ occur, your system is designed to be as purpose-based as possible. The following demonstrates features built into your system:

If your system informs you of a HIGH TEMP ALERT™ and you choose to RESET the system remotely from the RCP, the system will enter Standby Mode **for a period of time equal to the ALERT DELAY you have programmed**. If during this Standby Period the interior temperature of the vehicle drops *below* the ALERT TEMP setting, the system will reset and return to normal operation at the end of the Standby Period.

***NOTE: IF YOU HAVE ADDED AN OPTIONAL FAN TO THE SYSTEM, IT WILL CONTINUE TO RUN AT HIGH SPEED UNTIL YOU MANUALLY CHANGE THE FAN SPEED ON THE HUD.***

If the temperature does not drop below the ALERT TEMP setting you have programmed, the system will again ALERT you when the Standby Period expires.

***NOTE: IF YOU MUTE THE RCP, YOU WILL BE NOTIFIED ONLY BY THE VIBRATION FUNCTION AND THE ALERT SCREEN DISPLAY ON THE REMOTE— BUT THE VEHICLE WILL CONTINUE TO REACT NORMALLY.***

If you are OUT OF RANGE and do not receive a HIGH TEMP ALERT™ on your RCP, your in-vehicle system will react as if it was still in contact with the RCP.

The moment you are OUT OF RANGE from the vehicle, the RCP will warn you — “OUT OF RANGE” will appear on the RCP display. When you come back into range, the RCP again will display system information.

***NOTE: AS WITH ANY RADIO FREQUENCY (RF) DEVICE, THE ABILITY OF THE RF SIGNAL TO PENETRATE CERTAIN MATERIALS VARIES. CELL PHONE AND PAGER SIGNALS FOR EXAMPLE DIMINISH GREATLY WHEN YOU ENTER BUILDINGS CONSTRUCTED WITH STEEL SUPERSTRUCTURES AND METAL BUILDINGS IN GENERAL. THESE SAME BUILDING STRUCTURES WILL AFFECT THIS SYSTEM’S REMOTE SIGNAL. LINE-OF-SIGHT READINGS TAKEN BY GPS HAVE SHOWN THE RF SIGNAL WILL WORK IN EXCESS OF ¾ OF A MILE. THIS RF SIGNAL HAS BEEN OPTIMIZED TO PROVIDE THE BEST POSSIBLE SIGNAL STRENGTH AND QUALITY; HOWEVER SOME STRUCTURES AND MATERIALS WILL STILL ADVERSELY AFFECT THIS SIGNAL.***

## Notifications From The Interactive Intelligent Remote/Pager

Displayed Message	Event Description	Audible/Tactile Feedback
ALERT!  HIGH TEMP ALERT	The in-vehicle temperature has exceeded the alert temperature at <u>both</u> sensors.	Continuous alternating vibrator and beeper (No beeper if 'MUTE' is enabled).
ALERT!  VEHICLE POWER	The vehicle battery voltage has dropped below 12.2 volts.	Continuous alternating vibrator and beeper (No beeper if 'MUTE' is enabled).
LOW BATTERY	The Remote Control battery needs to be recharged to ensure continued operation.	Continuous vibrator cycles.
OUT OF RANGE	The Remote Control has lost synchronization with the RF signal from the Control POD.	No audible or tactile feedback.



## **Product Care and Service**

Your system has been designed to give years of trouble free use. Great effort was given to the selection of the highest quality components and fixtures. Following are tips and suggestions that will help keep your system fully functional.

### **Heads Up Display**

The Heads Up Display (HUD) can be cleaned with a soft, moist cloth. Do not use abrasive cleansers as they can damage the LCD panel and the housing. Your HUD requires no additional user maintenance.

### **Interactive Intelligent Remote Control/Pager**

Your Remote Control/Pager (RCP) is designed to be carried on a law enforcement duty belt. Included with your system is a custom belt holster that is engineered to offer durability, ease of use, and comfort when carrying the RCP.

The RCP contains a high quality rechargeable memory-free battery. When connected to the charger the LCD display will read CHARGING BATTERY. If the battery is completely discharged it can take a minute or more for the display to show the CHARGING BATTERY message. When fully charged, the CHARGING BATTERY message will no longer be displayed.

Your RCP can be cleaned with a soft, moist cloth. Do not use abrasive cleaners as they can damage the LCD panel and the case. Do not submerge the RCP in water. However, if the RCP does become immersed in water, turn it off immediately. Allow the RCP to completely dry before attempting to turn it on again.

## **Warranty**

### **Two Year Warranty**

Ray Allen Manufacturing, LLC guarantees the purchaser that this F Series System will perform without defect in materials and workmanship for a period of two years from date of purchase. Ray Allen will replace or repair defective materials at its discretion.

Exclusions to this warranty include, but are not limited to, acts of God or nature, vehicle accidents, product misuse or alteration (without the explicit direction of Ray Allen) or improper installation. Warranty does not include cost of removal, installation, labor, or any other cost incurred by purchaser. Ray Allen Manufacturing, LLC assumes no responsibility or liability for installation, use or misuse of the F Series System.

This warranty is valid for the original installation of this unit and is voided if the F Series System is removed from the originally installed vehicle and installed into another vehicle.

Warranty service requests are to be reported by phone to Ray Allen at (800) 444-0404 or sent in writing via e-mail to:

[Fseries@rayallen.com](mailto:Fseries@rayallen.com)

Requests require the serial # of the System and original sales order number to be processed.

To activate your warranty, register your product on the Ray Allen website. Go to the following link to process your registration:

[www.rayallen.com/fseries/register](http://www.rayallen.com/fseries/register)

## **Disclaimer**

Ray Allen Manufacturing, LLC can, at its discretion and without prejudice, make improvements to these products at any time. These improvements may or may not be made available to previously purchased products.

This product is designed for sale and use within the United States of America and its territories. Ray Allen Manufacturing, LLC will assume no liability or responsibility for any use or installation of this system outside of the USA. Such use is the sole responsibility of the purchaser.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that Interference will not occur in a particular installation. If this equipment does cause harmful Interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult an experienced technician for help

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received including interference that may cause undesired operation.

Caution: changes or modifications not expressly approved by Ray Allen Manufacturing, LLC could void the user's authority to operate the equipment.



For More Information Contact:

Ray Allen Manufacturing, LLC  
975 Ford Street  
Colorado Springs, CO 80915

(800) 444-0404  
(719) 380-9730—Fax  
[www.rayallen.com](http://www.rayallen.com)  
[fseries@rayallen.com](mailto:fseries@rayallen.com)