EXCALIBUR

RS-350-EDPB

Deluxe Keyless Entry & Remote Start

June 25, 2013

Operation Guide

Temporary cover. Color cover is in a separate file.

THE TRANSMITTER
Part number: 147-03
Call your dealer or visit www.caralarm.com to order replacement transmitters.

1) **Antenna**

2) **Lock Button**

3) **Unlock Button**

4) **Trunk Button**

5) **Start Button**

Transmitter battery replacement:
Remove the small screw from the lower back case, and separate the transmitter halves. Replace the battery(ies) and reassemble the transmitter case.
Battery Types:
147-03 - CR2016 (2 required)

LOCK: Press and release the "LOCK" button.

• THE HORN WILL CHIRP ONCE (SELECTABLE) & THE PARKING LIGHTS WILL FLASH ONCE.

UNLOCK: Press and release the "UNLOCK" button.

• THE HORN WILL CHIRP TWICE (SELECTABLE) & THE PARKING LIGHTS WILL FLASH TWICE THEN ILLUMINATE FOR 30 SECONDS.

TRUNK RELEASE / CHANNEL 2: Press the "TRUNK" button for 3 seconds.

• THE SYSTEM WILL UNLOCK AND THE TRUNK WILL OPEN (IF EQUIPPED).

REMOTE START: Press and release the "START" button twice within 5 seconds. (see user feature #17 for additional options)

• THE PARKING LIGHTS WILL FLASH ONCE AND THE STATUS LIGHT WILL FLASH RAPID GREEN.
• THE SYSTEM WILL TURN ON THE IGNITIONS AND PROCEED TO START THE ENGINE.
• ONCE THE ENGINE IS RUNNING, THE PARKING LIGHTS WILL TURN ON AND STAY ON AND THE STATUS LIGHTS WILL FLASH SLOW GREEN.

• If the engine stalls, the system will make up to 3 more attempts.
• Each time you park, set the climate controls as desired when you use the remote start. The engine will run for the preset run time (see user feature #18).
• **Run Time Extender**: Press the "START" button one time during remote start to restart the engine run timer.
NOTE: This can only be used once per remote start cycle.
• If you decide not to drive your vehicle, you can turn off the remote start using the same method to turn it on (Default = press "START" twice in 5 seconds)
NOTE: If user feature #17 is programmed for 1 press, the 1st press = Run Time Extender so an additional press is required.
• Upon entering the vehicle during remote start mode, turn the ignition key to the "ON/RUN" position (**NOT START!!**). When you press the brake pedal, the remote start will turn off allowing the ignition key to take over.

CHANNEL 3: Press and hold the "TRUNK" & "START" buttons for 3 seconds.

• YOUR SYSTEM WILL ACTIVATE THE CHANNEL 3 OUTPUT.

**CHANNEL 4:** Press and hold the "LOCK" & "TRUNK" buttons for 3 seconds.
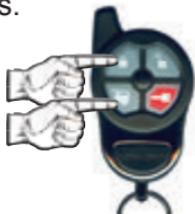
• YOUR SYSTEM WILL ACTIVATE THE CHANNEL 4 OUTPUT.

CHANNEL 5: Press and hold the "UNLOCK" & "START" buttons for 3 seconds.

• YOUR SYSTEM WILL ACTIVATE THE CHANNEL 5 OUTPUT.

PANIC: Press and hold the "LOCK" or "UNLOCK" button for 3 seconds.

OR
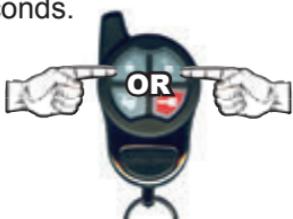
• THE SIREN/HORN WILL SOUND, THE PARK-ING LIGHTS WILL FLASH, AND THE DOORS WILL LOCK OR UNLOCK DEPENDING WHICH BUTTON IS PRESSED.

SILENT LOCK / UNLOCK: Press and release the "TRUNK" button twice in 5 seconds.

• THE PARKING LIGHTS WILL FLASH, AND THE DOORS WILL LOCK OR UNLOCK DEPENDING ON THE CURRENT SYSTEM STATUS.

REMOTE VALET: Press and release the "START" button within 5 seconds of unlocking system.

• THE SYSTEM WILL ENTER VALET MODE. SEE PAGE 8 FOR MORE INFO ON VALET MODES.

LOW VOLTAGE/TEMP AUTO START: Press and release the "START" button within 5 seconds of locking the system.

• THE SYSTEM WILL GIVE ONE CHIRP TO INDICATE THE LOW VOLT/LOW TEMP(15 DEGREE ONLY) AUTO-START IS ACTIVATED. SEE BELOW FOR MORE INFO.

AUXILIARY FUNCTIONS 1-4:

The actual operation of these functions will vary from car to car. They are designed to operate extra functions like automatic sliding doors or motorized hatches. Aux 1-4 are virtual outputs only available when this system is integrated with the vehicle's data network. Consult with your installer to find out if any of these functions are available then confirm each operation and write them below.

- **Auxiliary 1 Function (_____)**: To activate this function, press and release the "**trunk**" and "**start**" buttons simultaneously).
- **Auxiliary 2 Function (_____)**: To activate this function, press and release the "**lock**" and "**trunk**" buttons simultaneously).
- **Auxiliary 3 Function (_____)**: To activate this function, press and release the "**unlock**" and "**start**" buttons simultaneously).
- **Auxiliary 4 Function (_____)**: To activate this function,
press and release the "**unlock**" and "**trunk**" buttons simultaneously).

Other Remote Start Features

LOW BATTERY/LOW TEMP AUTOMATIC STARTING

This feature will automatically start the engine if the vehicle battery drops below 11 volts or the interior temperature drop to 15 (or 32) degrees fahrenheit. You must activate these features each time you park your car to use them. They can be activated one of two ways:

Method 1 - Valet Switch
• Turn the ignition switch "on", then "off" (engine not running), and within 7 seconds press the valet switch twice. If there is a 2 second delay without additional valet button presses, the horn will honk 3 times activating low voltage start mode.
• To activate low temp starting, enter low voltage start mode as described above but, before the horn honks, press the valet switch 1 time (15 degrees) or 2 times (32 degrees) within 5 seconds. The horn will honk to confirm your selection.

Method 2 - With The Controller (Low Volt + Low Temp - 15 Degrees Only)
• Within 5 seconds of pressing LOCK, press the START button. You will get one chirp and the 2-way controller will alternate between "ARM" and "RS AUTO".

NOTE: When low temp start mode is activated, low voltage start is also activated. These features will operate once every two hours until the ignition key is turned "ON".

TURBO TIMER FEATURE

This is recommended for vehicles equipped with a turbocharger. It allows the engine to idle after driving to cool the turbo. When this Installer Programmable Feature (#4) is enabled, the system will automatically keep the engine running as follows:

• With the engine running, hold the brake pedal and engage the parking brake.
When the brake pedal is released, the system will keep the engine running for the programmed time (1, 2, or 3 minutes), and then automatically turn it off.

• The system may be locked while the engine is running. Turbo Timer can be prevented from engaging, or "bypassed" if desired, by turning the engine off before engaging the parking brake.

PIT-STOP FEATURE

This feature allows you to leave your engine running for making quick errands. To use this feature, have the engine running normally from the ignition switch and your foot off the brake pedal. Press the Valet Switch twice; the parking lights will flash and the horn chirps 5 times. Turn the key off and the engine will remain running for the programmed run time.

MANUAL TRANSMISSION STARTING

Remote starting with a manual transmission requires a different installation method and installer feature #5 must be turned on. Also, a setup procedure that ensures the transmission was left in neutral must be performed each time you leave your vehicle and intend to use remote start later. Perform these steps:

1) With the engine running, hold the brake pedal, apply the parking brake, then release the brake pedal.
2) Use the transmitter as if you were activating remote start (default: press START twice). The green status light will start to flash slow.
3) Turn off the ignition key and exit the vehicle.
4) Press LOCK on the transmitter. The engine will shut down (unless turbo timer is on) and the status light will flash green every 2 seconds to indicate it is ready to be remote started.
NOTE: Manual transmission starting is canceled if you enter the vehicle after performing the setup procedure.

LAST DOOR ARMING

This system can be configured to arm the starter interrupt (optional) and/or lock automatically when all the vehicle's doors are closed (see user feature #2). When this feature is utilized, the horn will chirp once when all of the doors are closed. At that point, it will start a 30 second countdown (indicated by a fast flashing status light). After 30 seconds, the system will arm and/or lock the doors. During the 30 second delay, if a point of entry is opened, the countdown will pause until all entry points are closed again. Turning ON the ignition key will cancel the last door locking sequence until the key is turned off and the doors are all closed once again.

AUTOMATIC REARMING

This automatically rearm the starter interrupt (optional) and/or lock the doors if the system is unlocked from the remote. (see user feature #3). When unlocked by remote, the system will start a 90 second countdown (fast flashing status light) to lock the doors. This is useful if the controller accidentally unlocks the system when it's kept in a purse or pocket where other items could potentially press the buttons. ENHANCED AUTO REARM allows you to cancel the countdown by pressing UNLOCK a second time within 5 seconds of the first press.

Using The Valet Switch

EMERGENCY OVERRIDE

If your controller becomes inoperable, you'd need to perform an emergency override to disarm the starter interrupt. To do so, use the following steps:

STEP 1 - Enter the vehicle

STEP 2 - Turn the ignition key to the "ON" position

STEP 3 - Press the valet switch (located in the window-mount antenna) once

NOTE: Enter your SecureCode at this time if programmed via user feature #1

STEP 4 - Turn the ignition "OFF".

VALET MODES

VALET MODE, while active, completely disables all security functions. Keyless entry & remote start are still operable. To enter valet mode, perform the following steps:

STEP 1 - Unlock the system either with the controller or by performing an emergency override (make sure NOT to hold the brake pedal).

STEP 2 - Press and hold the valet switch for 2 seconds. The system will chirp once and the RED status light will turn on.

REMOTE START VALET MODE, disables remote start only. Keyless entry and passive lock functions still operate. To enter remote start valet mode, perform the following steps:

STEP 1 - Unlock the system (by remote or by emergency override)

STEP 2 - Hold the brake pedal then press and hold the valet switch for 2 seconds. The system will chirp once and the GREEN status light will turn on.

FULL VALET MODE combines both normal & remote start valet modes. To activated full valet mode, follow these steps:

STEP 1 - Enter remote start valet. You will hear a chirp.

STEP 2 - Release the brake pedal but continue holding the valet switch. After 2 seconds, you will hear a second chirp.

STEP 3 - Immediately release the valet switch. The status light will alternate between RED and GREEN every second.

EXITING VALET MODES - Press and release the valet switch once. The status light will turn off. This procedure is the same for all forms of valet mode.

SECURECODE

SecureCode allows you to customize the number of valet presses required to perform an emergency override. SecureCode has 2 stages with the first requiring 1-9 button valet presses and the second requiring 0-9 valet button presses. This gives you 99 possible combinations. To program a custom SecureCode, please refer to user feature #1.

To perform an emergency override with SecureCode, use the following steps:

STEP 1 - Enter the vehicle.

STEP 2 - Turn the ignition switch to the "ON" position.

STEP 3 - Within 5 seconds of step 2, press the valet switch to enter the first digit of your programmed code.

STEP 4 - After a few seconds, the horn will chirp once (confirming stage 1).

STEP 5 - Now, within 5 seconds of step 4, press the valet switch to enter the second digit of your code. If the code is correct, the starter interrupt will disarm.

If the code is entered incorrectly, turn the ignition key OFF, then back ON to try again. If 2 failed attempts are made, no further attempts can be made for 2 minutes.

The status lights, located in the antenna, provide a visual indication of the system's status via GREEN (remote start status) and RED (system status) lights.

SYSTEM STATUS (RED LIGHT):

ON CONSTANT: The system is in valet mode.

FLASHING FAST: One of the automatic locking features is in progress.

AUTOMATIC TRANSMITTER VERIFICATION (RED LIGHT):

Every time you turn on the ignition key, the status light will flash a number of times equal to the number of transmitters programmed to the system. This unique security feature protects you from a potential thief (valet attendant, mechanic, installer, etc.) from adding their own transmitter without your knowledge and accessing your vehicle and it's contents at a later time (the perfect crime!).

REMOTE START STATUS (GREEN LIGHT):

OFF: The remote start is off and in standby mode.

ON CONSTANT: The remote start is in valet mode.

FLASHING SLOW: The engine was started successfully and is running.

FLASHING FAST: The remote start sequence has begun and is in process of starting the vehicle's engine.

1 FLASH EVERY 2 SECONDS: System is ready to remote start in manual transmission mode.

REMOTE START DIAGNOSTICS (GREEN LIGHT):

The remote start system can also indicate which zone caused the last remote start cycle was ended. To see this indicator, place the system into valet mode. Immediately after the chirp, the GREEN status light will flash to indicate what caused remote start to end.

1 FLASH: Run time expired.

2 FLASHES: Brake pedal was pressed.

3 FLASHES: Engine stalled or a bad tach signal.

4 FLASHES: Received transmitter command to stop.

5 FLASHES: Gear selector was moved from park(or the parking brake was released).

6 FLASHES: Low battery voltage.

COMBINATION INDICATIONS:

This indication reflect combinations of functions involving the keyless entry system AND remote start.

SLOWLY ALTERNATES GREEN/RED: System is in full valet mode.

SOLID RED W/ GREEN FLASH: System is in valet w/ remote start activated.

Anti-Carjacking Protection

The system is equipped with two separate Anti-Carjacking protection features (ignition, open door, or both). All are programmable, and must be turned on to operate. Once activated, the user has 53 seconds to cancel the Anti-Carjacking protection process (described below). If Anti-Carjacking is not cancelled, 53 seconds after being activated the siren will begin to chirp for 7 seconds to alert the user that the system is about to enter into an alarm condition. The Valet Switch may still be pressed once during this period to cancel the Anti-Carjacking process.

If the Anti-Carjacking process is not cancelled before the 60 second countdown expires, the system will enter an alarm condition, sounding the siren and flashing the parking lights. 30 seconds after this occurs, or should the ignition be turned off in the meantime, the stater interrupt will engage. Once the system enters the alarm condition, it will not respond to the transmitter, nor will the system reset automatically after 60 seconds, and it can only be disengaged by:

Step 1 Turning the vehicle's ignition off.
Step 2 Turning the ignition back on.
Step 3 Within 5 seconds, perform an Emergency Override using the Valet Switch. If the SecureCode has been customized, the correct number of Valet Switch presses must be made.

The different types of Anti-Carjacking protection are:

Ignition Activated Anti-Carjacking activates every time the vehicle's ignition is turned on. The Valet Switch must be pressed within 60 seconds of activating to cancel Anti-Carjacking. This is User Programmable Feature #15.
Door Anti-Carjacking activates when a door is opened after the vehicle is started and the engine is running. The Valet Switch must be pressed within 60 seconds after activation to cancel Anti-Carjacking. This is User Programmable Feature #15.

Standard Programming: This method to program additional or replacement transmitters does not affect the Unauthorized Transmitter Alert (UTA) feature. Before you begin, have all transmitters which are to operate the system at hand.

Step 1 Then, turn the ignition "on".

Step 2 Within 5 seconds of Step 1, press the Valet Switch 5 times. The siren/horn will briefly sound, confirming that the system is ready to learn a transmitter code.

Step 3 Press the "**lock**" button on each transmitter one at a time. The system will chirp the siren/horn once to confirm that each was learned. If a code is not received within 10 seconds of Step 2, the learning process will automatically exit.

> If the Unauthorized Transmitter Alert feature is on, programming a transmitter to the system will activate the "UTA" warning and the extended Status Light indication. For the next 48 hours, the siren/horn will sound a brief series of chirps every time the vehicle's ignition key is turned on.

Special Programming procedure to turn on the UTA feature: Using this method to program transmitters or optional controllers, and to turn on the Unauthorized Transmitter Alert feature.

Follow the same steps as the Standard Programming, but on any transmitter/controller being programmed instead of pressing the "**lock**" button, press the "**lock**" and the "**unlock**" buttons together. This action turns **on** the Unauthorized Transmitter Alert feature and at the same time programs the transmitter or controller to operate the system.

Once the Unauthorized Transmitter Alert feature is turned on, the warning will sound for 48 hours after any transmitter programming. This feature can only be turned off again by sending the system back to Omega for a reset.

Programming Features

Step 1 Turn the ignition key "ON", then "OFF"

Step 2 Within 5 seconds of step 1, press the valet switch 5 times to access user features (10 times to access installer features).

~ The siren/horn will sound and the status light will turn on.

Step 3 Within 10 seconds of step 2, press the valet switch the number of times corresponding with the desired feature's number.

~ The siren/horn will chirp, the status lights, and the parking lights will flash equal to the selected feature.

Step 4 Change the feature by pressing the transmitter button that corresponds with the desired setting. The siren/horn will chirp to correspond with the chosen setting.

User Programmable Features

Feature #1 - SecureCode
DEFAULT - 1 Press

SecureCode is a unique patented feature which allows you to custom select the number of Valet Switch presses in two stages, instead of a single "1 press", which would be required in order to perform an Emergency Override. If any of the three anti-carjacking features are utilized, a customized SecureCode would also be required to turn it off once it is fully activated. The SecureCode operation is described on page 8.

To custom program a new SecureCode:

Step 1 Follow Steps 1 to 4 in the previous "Programming Features" section to access "feature #1".

Step 2 Within 10 seconds slowly press and release the transmitter's "**lock**" button the number of times equal to the desired SecureCode for stage 1, allow the system to respond to each transmitter button press with a siren chirp before pressing the button again. A few seconds after the final button press, the system will chirp the horn/siren confirming the total number for stage 1.

Step 3 Configure stage 2 of the SecureCode by pressing and releasing the "**unlock**" button the number of times desired for the stage 2. The system will confirm as it did for stage 1.

Feature #2 - Last Door Arming
Off (press "**lock**" button to program) **- DEFAULT**
On w/o Doors Locking (press "**unlock**" button to program)
On w/ Doors Locking (press "**trunk**" button to program)

"Last Door Arming" has the system automatically arm the starter interrupt every time you exit the vehicle (the complete operation is described on page 7). This feature turns that operation on or off, and with options of having Last Door Arming operate with or without also locking the doors when the starter interrupt does arm.

Feature #3 - Automatic Rearming

Off (press "**lock**" button to program) **- DEFAULT**
On w/o doors locking (press "**unlock**" button to program)
On w/ doors locking (press "**trunk**" button to program)
Enhanced auto rearm (press "**start**" button to program)

"Automatic Rearming", described on page 7, rearms the starter interrupt if accidentally unlocked/disarmed. Options are to have Automatic Rearming operate with or without also locking the doors when the system does rearm. Enhanced auto rearm allows you to cancel the rearming sequence by pressing unlock a 2nd time after disarming.

Feature #4 - Starter Interrupt Functions

When Locked (press "**lock**" button to program) **- DEFAULT**
Anti-Grind Only (press "**unlock**" button to program)
Lock & Anti-Grind (press "**trunk**" button to program)
Automatic (press "**start**" button to program)

When Locked - The Starter Interrupt is enabled when you lock the doors by remote.
Anti-Grind Only - The Starter Interrupt is operable whenever remote start is on.
Lock & Anti-Grind - This setting combines the 2 options above.
Automatic - This will cause the Starter Interrupt output to automatically engage 90 seconds after the ignition switch is turned "off", and after unlocking the system with the remote.

Feature #5 - Ignition Activated Override

Off (press "**unlock**" button to program) **- DEFAULT**
On (press "**lock**" button to program)

This feature allows an emergency override to be performed by simply turning the ignition switch on within 10 seconds of the system's activation. After 10 seconds, a standard Emergency Override must be performed.

Feature #6 - Ignition Controlled Lock/Unlock

Off (press "**lock**" button to program) **- DEFAULT**
Lock w/ Ignition On (press "**unlock**" button to program)
Unlock w/ Ignition Off (press "**trunk**" button to program)
Lock And Unlock w/ Ignition (press "**start**" button to program)

This feature controls the lock/unlock operations when the ignition key is turned on/off,

Feature #7 - Open Door Bypass of Ignition Locking

On (press "**lock**" button to program) **- DEFAULT**
Off (press "**unlock**" button to program)

This feature cancels the automatic locking or unlocking of the vehicle's doors if one of the doors is open when the ignition switch is turned on or off.

Feature #8 - Confirmation Chirps

On (press "**lock**" button to program) **- DEFAULT**
Except Valet Mode (press "**unlock**" button to program)
On Demand (press "**trunk**" button to program)
Off (press "**start**" button to program)

This feature removes the system's locking & unlocking confirmation chirps for particular functions. The "On Demand" setting allows you to lock and unlock the doors without chirps. Similar to OEM keyless entry, pressing either function a 2nd time, will produce confirmation chirps.

Feature #9 - Confirmation Chirp Volume

Medium High (press "**trunk**" button to program) **- DEFAULT**
Low (softest) (press "**lock**" button to program)
Medium Low (press "**unlock**" button to program)
High (loudest) (press "**start**" button to program)

This feature allows the choice of four different volume levels of the system's confirmation chirps, and when programming it, the buttons can be repeatedly and sequentially pressed, thus making it easy to hear and choose the setting with the best chirp volume.

Feature #11 - Flashing Light Confirmations

On w/ Unlock, Flash w/ RS (press "**unlock**" button to program) **- DEFAULT**
On w/ Unlock & Remote Start (press "**lock**" button to program)
On During Remote Start (press "**trunk**" button to program)
Flashing During Remote Start (press "**start**" button to program)

This feature affects the parking light confirmations for unlock & remote start functions. With the above options, you can select any combination of:

- Flashes twice after unlock
- Flashes twice then stays on for 30 seconds after unlock
- Stays on during remote start mode
- Flashes slowly during remote start mode

Feature #12 - 2nd Channel (Trunk Release) Also Unlocks Doors

On (press "**lock**" button to program) **- DEFAULT**
Off (press "**unlock**" button to program)

This feature, turned on, configures the system to unlock when the 2nd channel is used.

Feature #14 - Alarm Functions Bypass

Off (press "**unlock**" button to program)
On (press "**lock**" button to program) **- DEFAULT**
This feature converts the system from a strictly Keyless Entry/Remote Start System to having the capability of a full security & alarm system - *SEE NOTE BELOW*.

WARNING: ENABLING ALARM FUNCTIONS REQUIRE INSTALLATION & WIRING CHANGES TO ACCOMODATE THESE FEATURES. ONLY YOUR INSTALLER SHOULD MAKE THESE CHANGES TO PREVENT IMPROPER OPERATION. IF YOU UPGRADE TO FULL ALARM FUNCTIONS, YOU'LL NEED TO DOWNLOAD THE <u>AL-1650-EDPB</u> OPERATION GUIDE FROM WWW.CARALARM.COM

Feature #15 - Anti-Carjacking

Off (press "**start**" button to program) **- DEFAULT**
Ignition Only (press "**lock**" button to program)
Door Only (press "**unlock**" button to program)
Ignition + Door (press "**trunk**" button to program)

This selects between the 2 forms of anti-carjacking protection. Details on using anti-carjacking protection are described on page 10.

Feature #17 - Remote Start Activation
Press "**start**" **button 2 times**   (press "**lock**" button to program) **- DEFAULT**
Press "**start**" **button 1 time**   (press "**unlock**" button to program)
Press Lock & Unlock   (press "**trunk**" button to program)
This feature changes how the remote start feature is activated using the controller
or transmitter. It also changes the number of pulses required to activate remote start
from the on the WHITE/BLUE wire
"**Start**" **button 2 times = 2 pulses on the WHITE/BLUE wire**
"**Start**" **button 1 time = 1 pulse on the WHITE/BLUE wire**
Lock & Unlock = 1 pulse on the WHITE/BLUE wire

Feature #18 - Remote Start Run Time
10 Minutes   (press "**unlock**" button to program) **- DEFAULT**
5 Minutes   (press "**lock**" button to program)
15 Minutes   (press "**trunk**" button to program)
20 Minutes   (press "**start**" to program)
This feature sets the period of time that the engine will run when remote started. If the
engine is not stopped by controller/transmitter command or a safety circuit violation,
the engine will automatically stop upon the expiration of the selected time period.

Installer Programmable Features

This group of Installer Programmable Features are all accessed as a group in the second level of features' programming. These features have a direct affect upon the system's operations related to the installation and vehicle type **AND SHOULD ONLY BE CHANGED BY THE INSTALLER!!!**

Feature #1 - Doorlocking Functions

0.8 Second Outputs   (press "**lock**" button to program) **- DEFAULT**
3 Second Outputs   (press "**unlock**" button to program)
Double Pulse Unlock Output (press "**trunk**" button to program)
Total Closure Lock Output   (press "**start**" button to program)

This single feature gives the installer several needed options, to match the system's doorlocking outputs to suite different vehicle requirements. The total closure setting provides a 28 second lock pulse and a 0.8 second unlock pulse.

Feature #2 - Light Relay Functions

Dome Light Output   (press "**lock**" button to program) **- DEFAULT**
Door Lock   (press "**unlock**" button to program)
Ignition Output   (press "**trunk**" button to program)
Accessory Output   (press "**start**" button to program)

The system has two built-in relays, which can be programmed to perform several different functions. The primary function of this relay, is to operate the vehicle's dome, or interior lighting as part of the system's operations. Optionally, if desired or needed, this relay can be programmed to be a door lock relay, or as medium-capacity ignition or accessory outputs (10A max), if needed for remote starting use.

Feature #3 - Horn Relay Functions

Horn Output   (press "**lock**" button to program) **- DEFAULT**
Door Unlock   (press "**unlock**" button to program)
Trunk Release   (press "**trunk**" button to program)
Pulse After Start (press "**start**" button to program)

The primary function of this second relay, is to operate the vehicle's existing horn; either in conjunction with the electronic siren, or in place of the siren. Using both the siren and the horn creates an extremely effective security system. Optionally, if desired or needed, this relay can be programmed as a door unlock, trunk release, or pulse after start relay.

Feature #4 - Turbo Timer

Off   (press "**lock**" button to program) **- DEFAULT**
Run 1 Minute   (press "**unlock**" button to program)
Run 2 Minutes (press "**trunk**" button to program)
Run 3 Minutes (press "**start**" button to program)

This feature, the operation of which is described on page 9, when turned on configures the system to automatically keep the engine running briefly after it is turned off. This operation is designed specifically for vehicles having turbocharged engines (the user may temporarily bypass the feature if desired). **This feature should only be programmed by the installer**, and the operation of this feature depends on the correct connection of the safety wire to the vehicle's parking brake.

Feature #5 - Manual Transmission Mode

Off (press "**unlock**" button to program) **- DEFAULT**
On (press "**lock**" button to program)

This feature changes the parameters of the system's remote start operation to be suitable for manual transmission-equipped vehicles via a "setup" procedure which must be followed upon exiting the vehicle to ensure the transmission is in neutral.

Feature #6 - Engine Detection Method

Tachless Hi (press "**lock**" button to program) **- DEFAULT**
Tachless Lo (press "**unlock**" button to program)
Tach Wire (press "**trunk**" button to program)
Data Tach (press "**start**" button to program)
Crank Only (press "**lock**" & "**unlock**" to program)

This feature selects the method in which the remote start monitors the engine's running condition in remote start mode.

"Tachless Hi" sensitivity mode uses a preset crank time (see installer feature #7) and monitors the vehicle's voltage level to determine if the engine is running. This setting looks for a voltage increase of 0.3v after cranking.

"Tachless Lo" sensitivity mode operates like the "Tachless Hi" setting but looks for a voltage increase of 0.5v after cranking.

"Tach Wire" Before this setting is programmed, refer to the "Violet/White wire" section of the installation manual for proper wiring connection and the Tach Learn Procedure. It will crank the engine for up to 3 seconds or until a tach signal is detected.

"Data Tach" mode operates just like the "Tach Wire" setting except it takes its reading from the D2D data port instead of using the Violet/White wire. Before using, make sure this function is supported by the Databus Interface module.

"Crank Only" AKA "blind start" is similar to the "Tachless" settings however, it only makes one start attempt and does not monitor engine running conditions. This is useful for many "push-to-start" vehicles.

Feature #7 - Starter Cranking Time

0.75 Second (press "**lock**" button to program) **- DEFAULT**
1.00 Second (press "**unlock**" button to program)
1.5 Seconds (press "**trunk**" button to program)
2.25 Seconds (press "**start**" button to program)

This feature determines the crank time of the 1st start attempt when in "Tachless" mode. If the engine doesn't start on the first attempt, it will retry up to 3 more times extending the crank time by an additional 0.2 second with each attempt..

Feature #8 - PINK/WHITE (IGN #2)Wire Function

Ignition (press "**lock**" button to program) **- DEFAULT**
Accessory(press "**unlock**" button to program)
Starter (press "**trunk**" button to program)

This feature changes the operation of the unit's large PINK/WHITE output wire. **This feature should only be programmed by the installer**.

Feature #9 - OEM Arm/Disarm Outputs or Additional Channels

OEM Arm / OEM Disarm (press "**lock**" button to program) **- DEFAULT**
OEM Arm / Channel 5 (press "**unlock**" button to program)
Channel 4 / OEM Disarm (press "**trunk**" button to program)
Channel 4 / Channel 5 (press "**start**" button to program)

The system has outputs designed for arming and/or disarming a factory-equipped security system. These wires may be used instead to provide further system outputs, which are remotely operated by the controller or transmitter. These outputs are in addition to the 2nd channel and 3rd channel outputs. As shown in the programming assignment, the arm, disarm, channel 4 and channel 5 are programmable as various combinations. For example, if the disarm output is needed, but not the arm output, then channel 4 may be made available for use.

Installer Programmable Features (cont'd)

Feature #10   Gasoline Or Diesel Engine
Gasoline　　　　　(press "**lock**" button to program) **- DEFAULT**
Diesel 15 Sec. Delay (press "**unlock**" button to program)
Diesel 20 Sec. Delay (press "**trunk**" button to program)
Diesel 30 Sec. Delay (press "**start**" button to program)
This feature changes the system's timing of the ignition and starter output sequence for gas or diesel engines. <u>Gasoline</u>: the starter output will occur 3 seconds after the ignitions turn on. When in "Tachless" mode, the engine running status is determined 10 seconds after starting. <u>Diesel</u>: the starter output will occur 15, 20, or 30 seconds after the ignitions turn on (allows for glow plug warming). When in "Tachless" mode, the engine running status will be determined 40 seconds after cranking.

Feature #11   Remote Start Lock Control
Off　　　　　　　　(press "**lock**" button to program) **- DEFAULT**
Lock After Start　　　(press "**unlock**" button to program)
Unlock before start　　(press "**trunk**" button to program)
Unlock Before+Lock After Start (press "**start**" button to program)
This feature allows for OEM alarm/lock control in relation to remote start operations thus eliminating extra wiring.

Feature #12   Low Temp Crank Extender
0ms (Off) (press "**lock**" button to program)
200ms (press "**unlock**" button to program) **- DEFAULT**
300ms (press "**trunk**" button to program)
400ms (press "**start**" button to program)
When the vehicle's interior temperature is below freezing, this feature adds extra crank time to the base timing (see installer feature #7). It applies to tachless modes only (installer feature #6)

Feature #13   Data Port Protocol
ADS (iData) (press "**unlock**" button to program)
D2D (Trilogix) (press "**lock**" button to program) **- DEFAULT**
This feature determines which data protocol is used on both data ports. Choose this based on the accessory being connected to the port. **NOTE: When a BLADE is inserted, this feature automatically switches to the ADS protocol.**

Feature #15   Blue Satellite Port, Blue Wire Function
Status　　　　　　　(press "**lock**" button to program) **- DEFAULT**
Pulse Before Start　　(press "**unlock**" button to program)
Defrost Pulse　　　　(press "**trunk**" button to program)
Pulse After Engine Off　(press "**start**" button to program)
This determines the function of the Blue wire on the Blue satellite relay port.
The Status setting turns on briefly before the Ignition output and stays on during remote start mode. The other settings give a 0.8 second pulse under the selected condition. **Defrost Pulse** will send a pulse after start only when the cabin temperature is below freezing (32 degrees F)

User Feature Programming: Ignition on, off, press valet 5 times				
# Feature	Lock Button	Unlock button	Trunk button	"START" button
1 Secure Code	1, 0 (default)			
2 Last Door Arming	Off	On w/o lock	On w/ Lock	
3 Automatic Rearming	Off	On w/o lock	On w/ Lock	Enhanced Rearm
4 Starter Interrupt Functions	W/ Lock	Anti-Grind Only	Lock+Anti-Grind	Automatic
5 Ignition Override	On	Off		
6 Ignition Lock/Unlock	Off	Lock w/ IGN ON	Unlock w/ IGN Off	Lock + Unlock w/ IGN On/Off
7 Open Door Bypass For Ign. Locks	On	Off		
8 Confirmation Chirps	On	Except Valet mode	On Demand	Off
9 Chirp Volume	Low	Med Low	Med Loud	Loud
10 N/A				
11 Flashing Lights Confirmation	On w/ Unlock + RS Steady	On w/ Unlock + RS Flashing	Steady During RS	Flashing During RS
12 Unlock Upon Trunk Release	On	Off		
13 N/A				
14 Alarm Functions Bypass	On	Off		
15 Anti-carjack	Ignition Only	Door Only	Ignition + Door	Off
16 N/A				
17 Remote Start Activation	Start / Pulse x 2	Start / Pulse x 1	Lock+Unlock	
18 Remote Start Run Time	5 min	10 min	15 min	20 min
Installer Feature Programming: Ignition on, off, press valet 10 times				
1 Doorlock pulse	0.8 sec	3 sec	Double unlock	Total closure
2 Light Relay Functions	Dome light	Lock	Ignition	Acc
3 Horn Relay Functions	Horn	Unlock	Trunk Release	Pulse after Start
4 Turbo Timer	Off	1 min	2 min	3 min
5 Manual Transmission	On	Off		
6 Engine detection	Tachless Hi	Tachless Lo	Tach Wire	Datatach
	Crank Only (press Lock + Unlock)			
7 Crank Time	0.7 sec	1 sec	1.5 sec	2.25 sec
8 Pink/White Ignition Wire Function	Ignition	Accessory	Start	
9 OEM Arm/Disarm/Additional Ch.	Arm/Disarm	Arm/Ch 5	Ch4/Disarm	Ch 4/Ch 5
10 Gas or Diesel Engine	Gas	Diesel (15 sec. Delay)	Diesel (20 sec. Delay)	Diesel (30 sec. delay)
11 Remote Start Lock control	Off	Lock after start	Unlock before start	Both
12 Low Temp Crank Extender	0ms	200ms	300ms	400ms
13 Data Port Protocol	D2D (Trilogix)	ADS (iData)		
14 N/A				
15 Blue Satellite Port Blue Wire Function	Status	Pulse Before Start	Pulse After Start Below Freezing	Pulse After Engine Off