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UltiHub
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How To Program Controllers & Transmitters

When using the ECHO-2 upgrade kit with the UltiHub, as many as four controllers or transmitters may be used to operate the system. Each transmitter has its own unique and ever-changing digital “code”, which is programmed to operate the system by a special “learning” procedure. When adding transmitters to operate the security system, all previous transmitter codes are deleted, so all transmitters which are to operate the system must be programmed at the same time. To program transmitters, follow this process:

- 1) Have all transmitters which are to operate the system at hand. Turn the ignition “on”.
- 2) Within 5 seconds of turning on the ignition, press the Valet Switch 5 times. The siren will chirp 4 times, confirming that for the next 10 seconds the system is ready to learn a transmitter code. To enter a transmitter code, simply press and release the transmitter’s “**arm/lock**” button (the button which is designed to arm the system). When the first transmitter code is learned all existing stored transmitter codes will be erased.
- 3) Press the “**arm/lock**” button on each remaining transmitter. The system will chirp the siren once to confirm that each transmitter code was learned. The other three transmitter button's functions will automatically be assigned when the “**arm/lock**” button is learned. If a code is not received within a 10 second period, the learning process will automatically terminate, as indicated by another 4 siren chirps.

Introduction

Please spend time reviewing this instruction guide to become familiar with the operations of your new **UltiHub** OEM alarm upgrade system. It is important to understand that some of the operations and features described in this manual may not be available on your particular vehicle. Since the UltiHub is communicating with the vehicles on board computer, the features and functions are limited to those made available by the vehicle manufacturer. Features will vary from car model to car model. The following list of features represent the maximum capabilities of the UltiHub system.

ECHO 2-way - 2-way confirmation with extended operating range and alarm notification for OEM alarm, keyless entry, & remote start systems

Sensor Upgrade - Up to 2 dual zone sensors can be added for layered protection

Siren Upgrade- A siren can be added for chirp confirmation & added audible alert

3rd Channel Output - An auxiliary output is present for activating an add-on remote start system

Starter Interrupt - A starter interrupt output is present for adding layered vehicle theft deterrence

Remote Transmitter Operations

The system can be controlled by your original remote transmitter or by the optional ECHO-2 two way controller.

The basic operations are:

- The “**arm/lock**” button arms the security system, which will also lock the doors, arm the starter interrupt output, and sound a siren chirp (if enabled). If using the ECHO controller, this button is also used to operate the “remote panic” feature by holding it for 3 seconds.
- The “**disarm/unlock**” button disarms the security system, and will unlock the doors. Depending on your vehicle’s original configuration, this operation may unlock the driver's door only upon one press of the button; then, if desired, all of the doors upon a second press of the button.
- The OEM “**trunk release**” or ECHO “**..**” button (if equipped) will open the trunk and disarm the UltiHub when pressed. Please consult the ECHO-2 operation guide for details on performing this function.
- **3rd Channel (Remote start)** is activated by one of 2 ways. If using your OEM remote transmitter, press “Lock”, then “Unlock”, then “Lock” within a 5 second window. If using the ECHO-2 controller, press the “Lock” and “Unlock” buttons simultaneously for 1 second.

seconds after being disarmed, unless the ignition switch is turned "on" or a door is opened.

In daily operation, upon disarming the system, Automatic Rearming is confirmed by a fast flashing LED status light. Once the ignition switch has been turned "on", the system will stay in a disarmed condition until it is armed again from the transmitter or by Last Door Arming. Opening a door will also stop Automatic Rearming; it will be cancelled completely if Last Door Arming is off, and temporarily suspended while the door is open if Last Door Arming is turned on.

#4 Valet Mode Enabled: Default ON. This feature allows the valet mode to operate as described on page 10. You can turn this feature OFF to disable the valet mode operation and keep the UltiHub fully functional at all times.

Programmable Features Reset:

You can reset all of the programmable features to their default settings by entering features programming mode (page 14) and immediately pressing the “lock” and “unlock” buttons simultaneously.

Selectable Code Override, please note that the "stage 2" is also required.

To custom program the Selectable Code Override from the default setting, follow Steps 1 and 2, on pages 34-35. In Step 2, the valet switch will be pressed once. At Step 3, press and release the transmitter's "**arm/lock**" button a number of times equal to the desired Selectable Code Override for stage 1. The system will respond to each transmitter button press with a siren chirp. After pressing the transmitter button the desired number of times, wait for the system to chirp the siren again an equal number of times. Now press and release the transmitter's "**disarm/unlock**" button a number of times equal to the desired Selectable Code for stage 2. The system will again chirp the siren in the same fashion as the code entered for stage 1.

Should the system have an unknown customized Selectable Override Code already entered, the factory-set default of one press and no press can be obtained by reprogramming this feature.

#2 Last Door Arming: Default OFF. This feature automatically arms the system and locks the doors upon your exiting the vehicle. The Last Door Arming feature is independent of the Automatic Rearming Feature.

#3 Automatic Rearming: Default OFF. This feature ensures that your system is always armed. It is possible, on occasion, to accidentally and unknowingly disarm the system by having an object press the transmitter button while in a pocket or purse. If this feature is programmed to operate, the system will automatically rearm itself & lock the doors 90

Auxiliary Functions 1-4:

The actual operation of these functions will vary from car to car. They are designed to operate extra vehicle functions like remote operation of automatic sliding doors or motorized hatches on minivans. It is recommended to test each of these operations from the ECHO controller (if equipped) and write each operation in the space provided.

- **Auxiliary 1 Function** (_____): To activate this function on the ECHO controller, press the "**...**" button for 1 second.
- **Auxiliary 2 Function** (_____): To activate this function on the ECHO controller, press the "**Lock**" and "**..**" buttons simultaneously for 1 second.
- **Auxiliary 3 Function** (_____): To activate this function on the ECHO controller, press the "**Unlock**" and "**...**" buttons simultaneously for 1 second.
- **Auxiliary 4 Function** (_____): To activate this function on the ECHO controller, press the "**..**" and "**...**" buttons simultaneously for 1 second.

Passively Arming The System

Automatically Arming The Security System Using "Last Door Arming": For maximum protection, the UltiHub can also automatically arm your vehicle's alarm and lock the doors. This feature is programmable, and may be configured to operate if desired (see page 16).

When the vehicle's last door is closed the siren will chirp once and the LED Status Light will begin to flash rapidly. Thirty seconds later the siren will chirp and the doors will lock. At this point, the LED Status Light will slow to a steady flash, confirming that the security system is fully armed. If a point of entry is reopened before the single siren chirp at 30 seconds, the Last Door Arming process stops, and will reset to start over when the point of entry is again closed. All protected entries must be closed to initiate the Automatic Last Door Arming sequence. Automatic Last Door Arming offers a high level of security, since you do not have to remember to arm the security system every time you leave the vehicle, and may entitle you to an insurance discount (please check with your agent or carrier).

To temporarily prevent the system from automatically Last Door Arming, you have these options: put the system in Valet Mode (page 10), leave the door open, or, in most cases turning on the dome light may cause the system to detect that your door is still open. Leaving the ignition key turned "on" is not recommended.

Automatic Rearming Feature: Should you unknowingly press the transmitter button, which results in your system disarming, the system will automatically rearm itself 90 seconds later and once again lock the doors. This feature is programmable, and may be turned on if it is desired.

Automatic Rearming can be paused by opening the door or stopped by turning "on" the ignition switch. Automatic Rearming is confirmed by a fast flashing LED Status Light after disarming, unless the system was triggered, in which case a Zone Violation code will flash instead.

Programmable Features

#1 Selectable Code Override: Default 1 & 0. The valet switch is an important part of your system; it allows an emergency override to disarm the system in place of the remote transmitter, and it is crucial to the programming of transmitters and features. Your system's advanced design includes this programmable feature, which allows you to configure the valet switch operation for the most convenient ease of use, or for personally-customized maximum security.

The Selectable Code Override must be entered to achieve an override disarming of the system. For a more secure access to an override disarm, the vehicle owner may select two separate stages of valet switch presses, and the number of valet switch presses, from 1 to 9 presses, for each of these stages, which are needed to achieve the successful entry of the Selectable Code Override. The customized number of valet switch presses are chosen by yourself, the vehicle owner, and programmed into the system.

As an illustration of this feature, with the default setting of "one and no presses", to disarm the system without the transmitter, after entering the vehicle, the ignition switch is turned "on", and the valet switch is pressed once, at which time the system will instantly disarm. With a custom-programmed Selectable Code Override of, for example, "3 and 9 presses", upon entering the vehicle and turning the ignition "on", the valet switch must be pressed three times. This causes the audible output (i.e.- horn or siren) to stop sounding and emit one chirp. The audible output then resumes, and the "stage 2" entry, nine presses must be entered, which achieves an override and disarms the system. However, if either entry is incorrect, the system will not disarm. If a customized valet switch entry is desired for the

- 5) Flash-2x & Pause = The security system was triggered from the hood and trunk circuit, or the current sensing circuit.
- 6) Flash-3x & Pause = The security system was triggered from the door circuit.
- 7) Flash-4x & Pause = The security system was triggered from the Auxiliary Sensor Port circuit.

Features Programming

Before attempting feature programming, please carefully read pages 15-17 to become familiar with the features and the programming procedure. Follow the procedure described below to program features for your desired operations.

Step 1 - Turn the ignition "off", and press the Valet Switch 5 times. (the system will respond by chirping the siren 4 times)

Step 2 - Press the Valet Switch the same number of times as the feature number. (the system will acknowledge the Valet Switch entry by repeating the same number of chirps)

Step 3 - Press the transmitter's "**arm/lock**" button to turn the feature "on", or press the "**disarm/unlock**" button to turn the feature "off". (turning the feature "on" is indicated by one siren chirp; turning the feature "off" is indicated by two siren chirps)

Repeat - Steps 2 and 3 for each feature to be changed

Security System Armed, & Triggered

While the security system is armed, the LED Status Light is always flashing. Should any intrusion attempt occur, the system will instantly "trigger" simultaneous to your factory alarm triggering, and once triggered, will respond by **sounding the electronic siren** (if equipped) **and relocking the doors** when the system is first triggered.

The siren will sound for 60 seconds unless you disarm the system with the transmitter or the Valet Switch and ignition key. If all protected entries are secure at the end of 60 seconds, the system will stop and rearm to detect further entry attempts. If there is a protected entry still open or if an optional sensor is still in a triggered state at the end of 60 seconds, the system will reactivate for another 60 second cycle.

Once the security system has been activated and reset, the disarming confirmation will no longer be 2 siren chirps. Instead, the system will respond with 4 siren chirps. The LED Status Light will change to flashing one to four times between pauses to indicate which protection circuit triggered the system. These audible and visual indications will remain this way until the ignition switch is turned "on".

Anytime the security system triggers, the LED Status Light will indicate which zone triggered the system by flashing one to four times, pausing between flashes. This code will continue to flash, even after disarming. The system can hold two different violation codes in its memory, which is cleared by turning the ignition switch "on".

ECHO 2-way Confirmations (optional)

If the optional ECHO-2 two way upgrade kit is installed with the UltiHub, it will provide confirmation for many of your original keyless entry/alarm's functions. The number of confirmations will vary from vehicle to vehicle based on their availability from the vehicle's design. It can give you status confirmation for Arm/Lock, Disarm/Unlock, Door Trigger, Hood Trigger, Trunk Trigger, Sensor Prewarn, Sensor Trigger, Valet Mode, Remote Start, Trunk Release, 3rd Channel Output, and more. For detailed descriptions on these operations, please refer to the operation guide for the ECHO-2 upgrade kit.

Dual Zone Sensor Operation (optional)

The UltiHub is capable of having up to 2 dual zone sensors added to the system. Dual zone means that under "light" detection, it will perform a warn-away function. When this function is triggered, the system will chirp 3 times. Some vehicles, if capable, will honk the horn 3 times. If an optional siren is added, it will also chirp. Some vehicles do not have the capability of short horn honks from the UltiHub system. In these cases, adding an optional siren is a necessity to gain the prewarning capability. When prewarning, the system will also relock the doors in case of a break-in attempt. If the sensor(s) detect a "hard" trigger, the UltiHub will sound the siren (if equipped) and panic the factory alarm. Again, some vehicles may not have the capability of activating the panic feature from the UltiHub. In this case, an optional siren would also need to be added.

Override factory setting of "stage #1, one valet switch press and stage #2, no valet switch press" is present, simply pressing the valet switch once within 10 seconds of turning the ignition switch "on" will override and disarm the system.

Red LED Status Light

The LED Status Light is a visual indication of what state the security system is in at any given time. The LED Status Light is normally positioned in a location that is easily observed by the driver. These are the possible conditions that the security system can be in as reflected by the LED Status Light:

- | | |
|------------------|--|
| 1) Off | = The security system is disarmed and not performing any automatic functions. |
| 2) On Constant | = The security system is in the Valet Mode. |
| 3) Flashing Slow | = The security system is armed. |
| 4) Flashing Fast | = The 30 second Last Door Arming feature or 90 second Automatic Rearming feature is in progress. |

Zone Violation: If the system is triggered, the LED Status Light will start to flash and pause one of the following sequences to indicate which protected circuit triggered the system. This is seen while the system is armed, and after disarming, until the ignition switch is turned "on", which will clear the Zone Violation code. The unit's memory can store two different violation codes.

Step 1 - While the system in the armed condition, enter via the driver's door. Be aware that the system will activate when the door is opened, sounding the siren, flashing the parking and dome lights, and locking the doors should the door entered be closed again before disarming the system.

Step 2 - Using your key, turn the ignition "on". **The following step must be performed within the next 10 seconds.**

Step 3 - Press the valet switch equal to the number programmed for stage #1; the factory setting is one. *If the factory default setting of 1 and 0 presses is retained, press and release the valet switch once and the system will instantly disarm.* The disarming will be accompanied by two siren chirps.

If stage #2 presses have been programmed, the system will not disarm, but pause and chirp the siren before continuing to sound. **When a stage #2 entry is required, at this point the stage #2 entry must be made within 10 seconds.** If both stage's entries are correct, the system will disarm shortly after the stage #2 entry. After a failed attempt to achieve Selectable Code Override, the ignition switch must be turned "off", then "on" again before another attempt is made. See page 15 for further information on the Selectable Code Override.

Once the system is disarmed, if Valet Mode is desired, just press and hold the Valet Switch for 2 seconds to place the system into Valet Mode. Remember, if the Selectable Code

Siren Alert & Chirp Confirmations (optional)

If an optional siren, like our line of Psycho 2-in-1 sirens, is added to the UltiHub, it will give you layered audible alerts and a more distinct alarm sound for alerting those around your vehicle. All of the standard functions and chirp confirmations are described in the previous sections of this manual.

3rd Channel / Remote Start Output

The UltiHub is equipped with a 3rd channel output. This output is designed to activate an add-on remote car starter or any other additional accessory you might wish to activate from your transmitter or the ECHO controller. Please refer to page 3 for instructions on how to activate the output.

Starter Interrupt Output

The UltiHub is also equipped with a starter interrupt output. With the use of an optional starter interrupt module, you can take advantage of this feature to add another layer of vehicle theft deterrence. The starter interrupt is activated any time the system is armed & not in valet mode.

Using The Valet Switch

The primary function of the Valet Switch is to place UltiHub system into Valet Mode, which prevents it from passively arming, arming the starter interrupt output, or arming any additional sensors. You will find this useful when stopping at service stations, having your vehicle serviced, having your car valet parked or while having your car washed. The Valet Switch, **in conjunction with the ignition key**, can be used to disarm the system should your transmitter be lost or become inoperable. The Valet Switch is typically mounted in the same housing as the LED Status Light. However, some custom installations may have the Valet Switch mounted in a more hidden location; if so, be sure your installing dealer indicates the location of the Valet Switch to you to avoid potential inconvenience.

Normal Valet Mode: This unique feature can be activated anytime the system is disarmed and allows you to enter the Valet Mode by simply pressing and holding the Valet Switch, provided the system is not armed. If the system is armed or in the triggered state, however, the ignition must be turned "on" and then the Valet Switch must be pressed within 5 seconds to disarm the system. A custom pin code can be configured for extra security. Once disarmed, it can be placed into Valet Mode.

While the system is disarmed, simply press and hold the Valet Switch for 2 seconds to activate the Valet Mode. The system will confirm that it is in the Valet Mode by chirping the siren twice and the LED Status Light will illuminate steady Red. The security system will stay in the Valet Mode when the ignition switch is "on" or "off". While in the Valet Mode, although the system will not arm, the transmitters will still operate the Remote Panic feature, the doorlocks, and trunk release.

While the security system is in the Valet Mode, every time the ignition switch is turned "off", the siren will chirp once as a reminder.

To turn off Valet Mode, simply press the Valet Switch, and instantly the security system will exit Valet Mode, and the LED Status Light will turn off.

Selectable Code Override- How To Disarm The Security System If The Transmitter Is Lost: In the event the transmitter is lost, damaged, or its battery become exhausted, the Valet Switch and your ignition key can be used to disarm the system. In the event the transmitter is lost, damaged, or it is otherwise inoperable, the valet switch **and your ignition key** may be used to disarm the system. Selectable Code Override offers a high level of security because, in addition to requiring the ignition key, **one to two separate stages of pressing the Valet Switch** may also be custom programmed as a requirement to accomplish the disarming of the system. Each of these stages may be further customized by programming multiple presses of the valet switch. This programmable feature, which is explained in detail on page 15), allows you to further enhance the effectiveness of your security system by "hardening" its resistance to being defeated. The factory-set default for Selectable Code Override is one press at stage 1, and NO press at stage 2; this is the most convenient and user-friendly setting. Therefore, the following step-by-step instructions reflect first the default setting, and then the following text continues to explain the custom-programmed setting: