



**iKEY**

**PREMIER**

**INTELLIGENT KEYLESS IGNITION**



**Installation Manual**

# iKey Premier Install Manual

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# Package Contents

The following components are included in the iKey Premier System

1 Main iKey System Module



1 iKey transponder Key fob (2 if ordered)



1 Emergency Bypass Cards (2 if ordered)



1 Start Button (type as ordered)



1 Power Harness (8-pin)



1 Primary Accesory Harness (10 pin)



1 Accessory Output Harness (9 pin)



1 Accessory Input Harness (7 pin)



1 Negative Output Ignition Harness (3 pin)



2 Proximity Antenna's (1 Front & 1 Rear)



1 Emergency Bypass antenna



1 Dual Color LED Harness



1 Dual Stage Shock Sensor



1 Tach Programming Button ( Remote Start only)



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## Warning and Safety Information / Product safety and legal disclaimer

This product should be installed by a trained technician therefore a certain level of competence and knowledge is therefore assumed when reading this guide.

This guide is provided as general installation instructions and vehicle subjected to installation may be different. This product is designed based on vehicle regulatory standard. Please observe your local public road and traffic law regulations prior to installation

Exercise due-diligence when installing this product. The manufacture and distributors of this product will not accept any vehicle damage or personal injury resulting from the installation of this product. Installation of this product is acceptance of this statement and releases the manufacture and distributors of this product from any direct or indirect liabilities.

Once installation is complete please return this guide along with other documentations included in this product back to the customer for future reference. The manufacturer and distributors of this product do not guarantee this particular version will be available at a later date.

# General Install Notes

- Carefully read and understand the user manual and installation guide and electrical service information for the subject vehicle before beginning work.
- Install in a well-lit, dry covered area away from the elements and keep at least one window open at all times during the installation.
- Prepare all tools required for the installation; Special tools may be necessary depending on the vehicle.
- Verify the vehicle has proper grounding and does not have any outstanding electrical or functional issues prior to installation.
- To avoid short circuit, it is recommended to pull out related fuses before installation and put them back when the installation is complete.
- Locate the necessary wires related to the installation. (Most required wires are under the driver dash and kick panel areas) and connect to the unit according to the wiring diagram. Use a multimeter to verify and confirm wires function and polarity before connecting or disconnecting. We strictly prohibit testing or modifying the vehicles ECU, Airbag or ABS systems.
- Begin function tests on the system only after verifying and ensuring all wires have been connected correctly and insulated properly.

## Before You Begin

### **Here are a few important things you will want to know before installing the iKey**

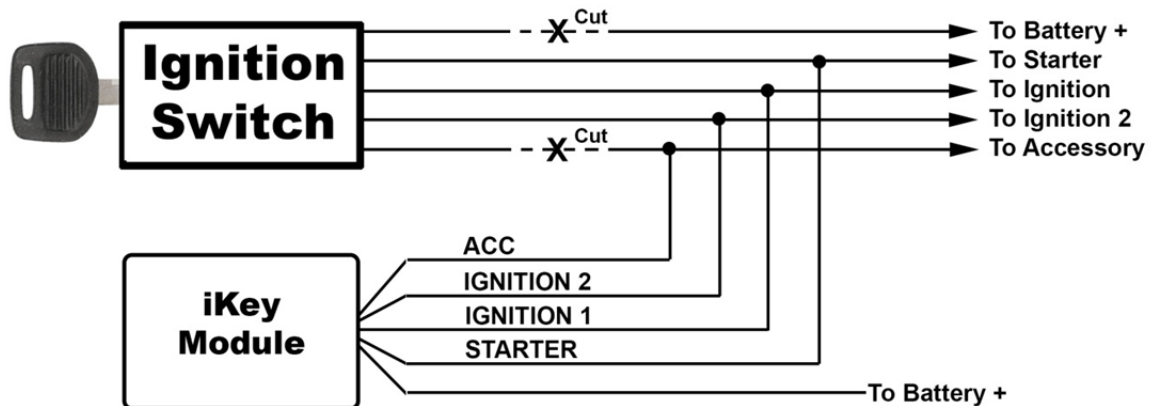
- Do not power up the module before it is properly grounded. Should the unit be powered up before being grounded serious damage to internal components could occur.
- Because the vehicles ignition operation is dependent on the iKey receiving proper power and ground, All +12V Power and (-) Ground Connections **MUST BE CONNECTED DIRECTLY TO THE VEHICLE BATTERY TERMINALS** without any additional fuses. Connecting to any other power or ground sources may cause unsafe operation of the system and void product warranty.
- If you are installing into a vehicle where you would need a Bypass or Data module for a standard remote start install, you will need the same type module for the iKey installation connecting it in a wire-2-wire method. All major brand Bypass or Data modules typically work fine.
- Review iKey Dip Switch and Jumper settings prior to installation and set according to requirements. **Always Power OFF the iKEY module before changing Dip Switch or Jumper positions**

### **Feature options available via Dip Switch and Jumpers**

- **Passive Keyless Entry ON for power locks / OFF for Shaved Doors**
- **Alarm Features ON / OFF**
- **Horn / Siren**
- **Single / Double Pulse Door Locks**
- **Dome Light Delay**
- You may need to release the steering column lock as part of your install, You will need a spare non-transponder key cut for the vehicle. Detailed instructions on page 16
- Avoid leaving the iKey Fob inside the detection range for extended periods of time. This will shorten the iKey's battery life as authentication stays constant between iKey and controller when ignition is off.
- **Safe Recovery Software:** As an added safety feature, once in RUN mode, the iKEY monitors the systems Ignition and ACC power outputs several times per second. Should battery power or ground ever be momentarily lost due to a poor or loose connection etc., the system will instantly recover and resume power to these output.
- **So, If you disconnect battery power to the system while in RUN mode, when power is reapplied the system will return to RUN mode and will then need to be cycled to the OFF position.**

# SYSTEM OVERVIEW

## BASIC IGNITION SWITCH CONNECTIONS



## BASIC IKEY FOB OPERATION



## Additional Functions

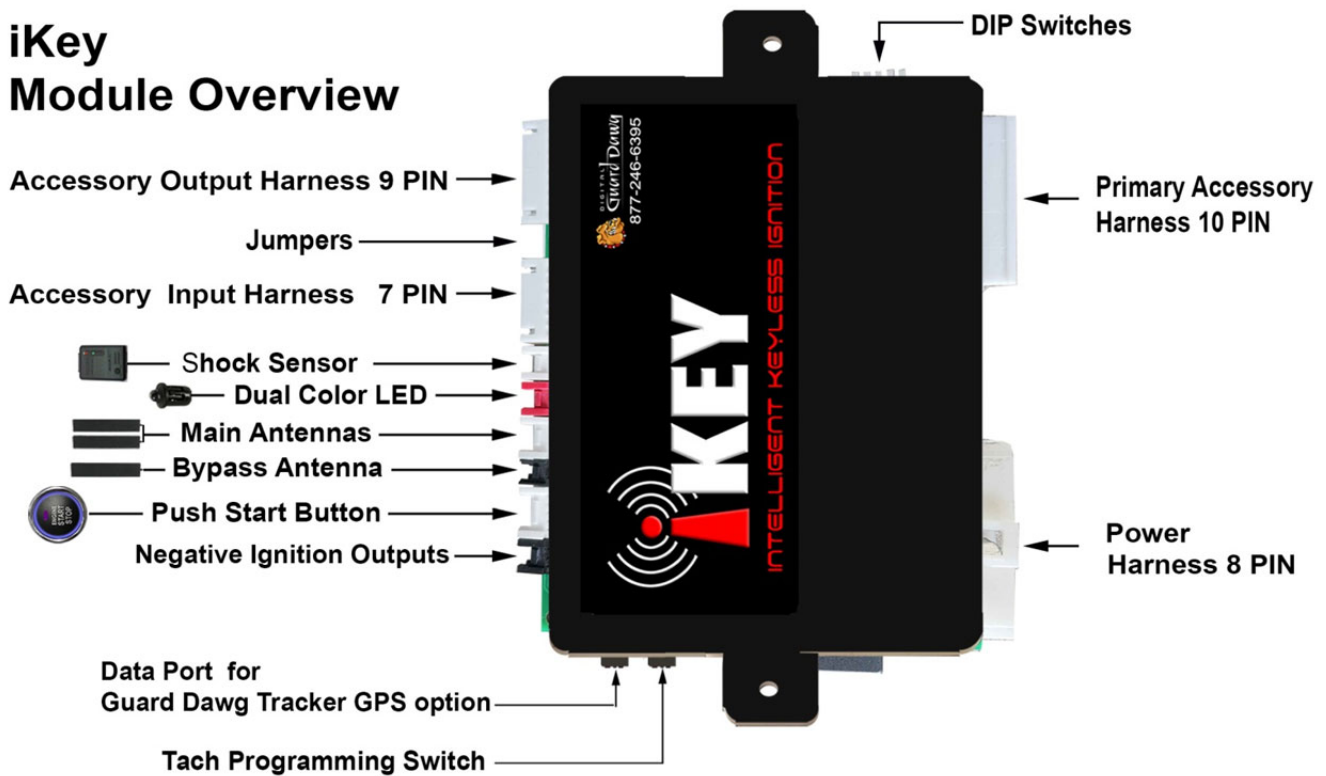
- AUX 1 Trunk first then Unlock
- AUX 2 Trunk first then Lock
- REMOTE START Trunk + Lock for 3 Sec
- PANIC Lock for 3 Seconds

The iKey Fob uses the latest advances in **RFID (Radio Frequency IDentification)** technology to deliver a level of security even better than many factory keyless systems. The iKey™ operates using our exclusive **DFDE (Dual Frequency ~ Dual Encryption)** communication technology. Each iKey™ is completely unique, one of over 6 billion different codes. The iKey Fob has 6 independent channels allowing you to control an almost endless combination of accessories, such as Door Locks, Trunk Release, Power Windows, Remote Start, Power Sunroof, Convertible Tops, Lighting or Audio systems all from a single remote.

The iKey Fob is both a Passive (*automatic*) and Active (*manual*) operating device. **PKE (Passive Keyless Entry)** operation includes unlocking your doors and disarming your alarm as you approach, then locking doors and arming your alarm when you exit, all done automatically without ever pushing any buttons.

Active operations include: Extended Range Lock and Unlock, Trunk Pop, Remote Starting, plus whatever additional accessories you add to Aux channels 1 & 2.

# iKey Module Overview



**\*\*\* NOTE: Not all connections will be needed for every vehicle. The iKey can be installed on virtually any vehicle new or old and provides all I/O's that will be necessary for every install.**

## START BUTTON OPERATION

### Standard Start / Stop Method:

#### To Start the Engine:

Depress the Brake Pedal, *(Depress Clutch if selected @Jumper J1)*  
 The Start Buttons LED will begin flashing, indicating the system is ready to start.  
 Press and Hold the Start Button until the Engine Starts.

#### To Turn the Engine OFF:

Depress the Brake,  
 Press the Start Button and the Engine turns OFF



### Emergency Start / Stop Method *(Brake / Clutch Override)*

If necessary, you can Start or Stop the engine without using the Brake or Clutch by depressing and holding the Start Button for 3 seconds. **\*\*\* Caution: In a manual transmission vehicle, this method could result in cranking the engine while in gear if you have not yet installed a Neutral Safety Switch.**

### One Touch Start / Stop Method: *(Included with the optional Remote Start package)*

#### To Start the Engine:

Depress the Brake Pedal, *(Automatic Transmissions Only)*  
 The Start Buttons LED will begin flashing, indicating the system is ready to Start.  
 Push and Release the Start Button, the Starter will crank until the engine is started.

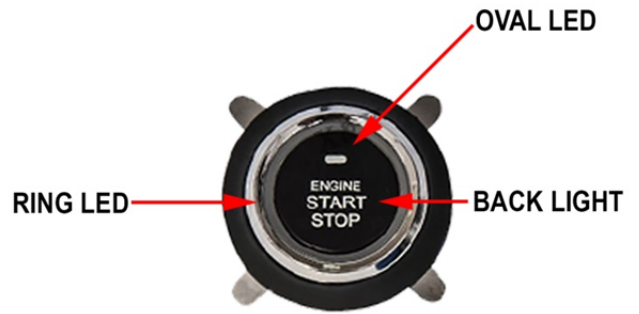
#### To Turn the Engine OFF:

Depress the Brake,  
 Press the Start Button, Engine turns OFF

**Diesel Vehicles:** Press and release the Start Button 1 time. When the Glow Plug Light goes out, depress the Brake, then press-and-hold the start button to START the vehicle.

# START BUTTON LED FUNCTIONS

**Note:** This diagram is for referenced LED positions of the Slim line Series Start Buttons only. If you have another style of Start Button, your LED layout may be different. Some Billet style Start Buttons have only one LED of a single color.



START BUTTON LED	RING LED	OVAL LED	BACK LIGHT
AUTHORIZED	ON	OFF	ON
ACCESSORY 1 ON	OFF	ON	ON
ACC 1&2+ IGNITION ON	ON	ON	ON
BRAKE DEPRESSED	FLASH	OFF	ON
RUN MODE	OFF	OFF	ON

# DIP SWITCH and JUMPER FUNCTIONS

## DIP SWITCHES



DOME DELAY OFF Up / ON Down	5
HORN Up / SIREN Down	4
Door Lk 1 Pulse Up / 2 Pulse Down	3
ALARM ON Up / OFF Down	2
PKE ON Up / OFF Down	1

## Switch #

## JUMPERS

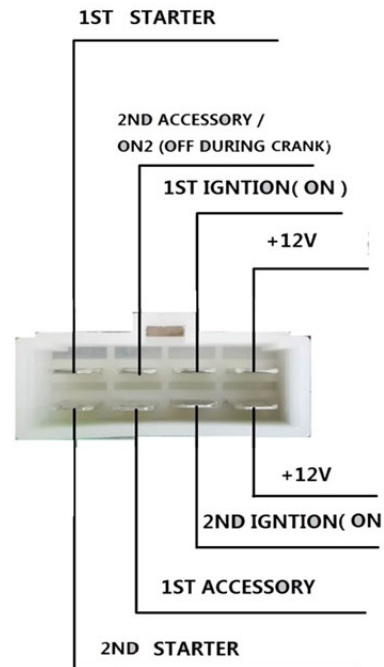
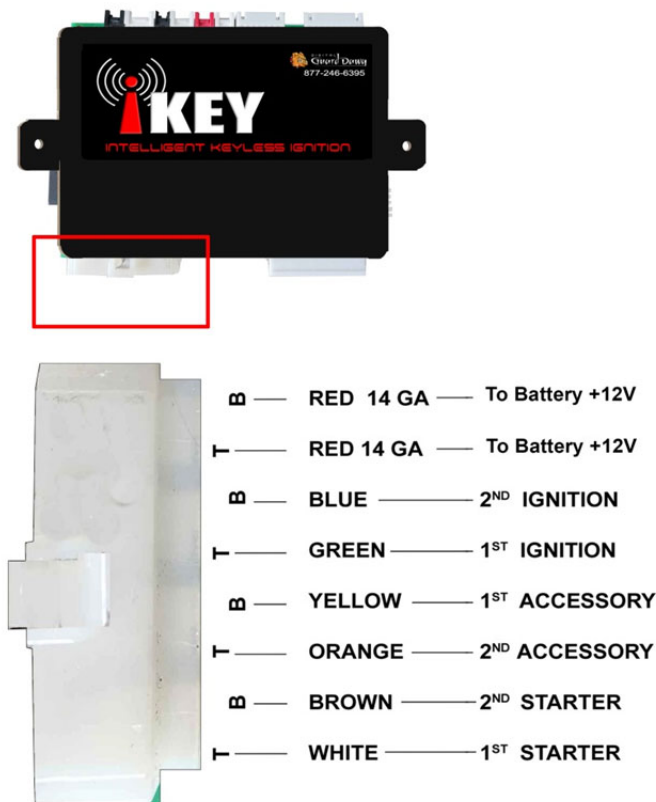


(J1) Brake (- / +)		Default
(J2) Door Trig (- / +)		Default

**IMPORTANT: You MUST remove power from the system prior to changing any Dip Switch or Jumper settings!**

# SYSTEM HARNESSES AND CONNECTIONS

## POWER HARNESS 8-pin 14 gauge



**Red wire +12V Battery Input THIS WIRE MUST BE CONNECTED DIRECTLY TO THE VEHICLES +12V BATTERY TERMINAL without any additional fuses.**

**2<sup>nd</sup> Red wire +12V Battery Input THIS WIRE MUST BE CONNECTED DIRECTLY TO THE VEHICLES +12V BATTERY TERMINAL without any additional fuses.** This is a redundant +12V supply for the system

**Green wire 1<sup>st</sup> Ignition Output (+) 40A** This is the systems Primary Ignition Output. It connects to the vehicles Ignition wire. This wire **does not drop out** during starter crank.

**Blue wire 2<sup>nd</sup> Ignition Output (+) 40A** This wire is for vehicles that need a 2<sup>nd</sup> Ignition wire. This wire **does not drop out** during starter crank.

**Yellow wire 1<sup>st</sup> Accessory Output (+) 40A** This wire energizes with the first push of the start button. Connect this output wire to vehicles accessory (ACC) input at the ignition switch. This wire **drops out** during starter crank. Typically used for radio / heater fan circuit etc.

**Orange wire 2<sup>nd</sup> Accessory Output (+) 40A** This wire energizes with the second push of the start button. Connect this output wire to vehicles accessory (ACC) input at the ignition switch. This wire **drops out** during starter crank.

**White wire 1<sup>st</sup> Starter Output (+) 40A** This wire energizes the vehicles starter. Connect this output to vehicle's starter input. \*\*\*Note: ensure that the ignition current is not rated more than 40A. Connect to external relay with higher current rating if required.

**Brown wire 2<sup>nd</sup> Starter Output (+) 30A** This wire energizes the vehicles starter. This wire is for vehicles that require a second starter wire. Connect this output to vehicle's second starter input.



## PRIMARY ACCESSORY HARNESS 10-pin 14-16 gauge



— BLACK	—————	GND
— GREEN / BLACK / SILVER	—————	LOCK ——— NORMALLY CLOSED
— WHITE / BLACK / SILVER	—————	LOCK ——— COMMON
— GREEN	—————	LOCK ——— NORMALLY OPEN
— BLUE / BLACK / SILVER	—————	UNLOCK ——— NORMALLY CLOSED
— WHITE / SILVER	—————	UNLOCK ——— COMMON
— BLUE	—————	UNLOCK ——— NORMALLY OPEN
— BLACK	—————	GND
— GRAY	—————	PK LIGHTS +
— GRAY	—————	PK LIGHTS +

**Black wire Ground ( - )** This is the system ground. This unit requires a substantial ground to handle high current draws. **THIS WIRE MUST BE CONNECTED DIRECTLY TO THE VEHICLES BATTERY GROUND TERMINAL** or factory ground block on chassis. Note **DO NOT** use a self-tapping screw for this ground.

**Lock & Unlock wires** For All LOCK and UNLOCK wires see diagram on the following page.

**2<sup>nd</sup> Black wire Ground ( - )** This is the redundant ground. **THIS WIRE MUST BE CONNECTED DIRECTLY TO THE VEHICLES BATTERY GROUND TERMINAL** or factory ground block on chassis. Note **DO NOT** use a self-tapping screw for this ground

### **Grey wire Parking Light Output (+) 7.5 A**

Connect to the positive side of the left/right parking lights or the hazard light switch.

### **Grey wire Parking Light Output (+) 7.5 A**

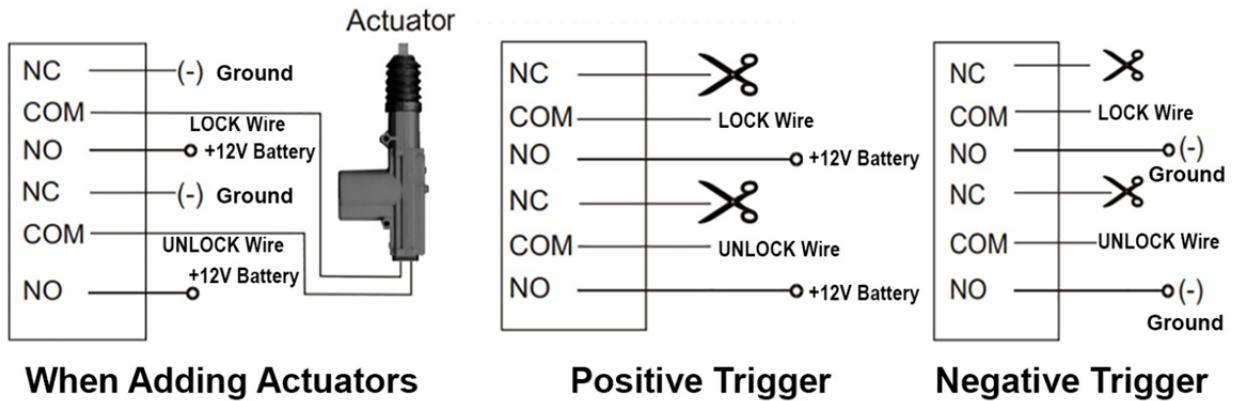
Connect to the positive side of the left/right parking lights or the hazard light switch.

## DOOR LOCK and UNLOCK CONNECTIONS

There are 3 types of door lock system installs. If you are installing new “Door Actuators” into your vehicle for the first time, you will follow the first diagram on the following page. If you already have a factory power door locks installed in your vehicle you have either a “Positive Trigger” or “Negative Trigger” system. You will need to determine which type of door locks you have, and then follow the appropriate connections on the following page.

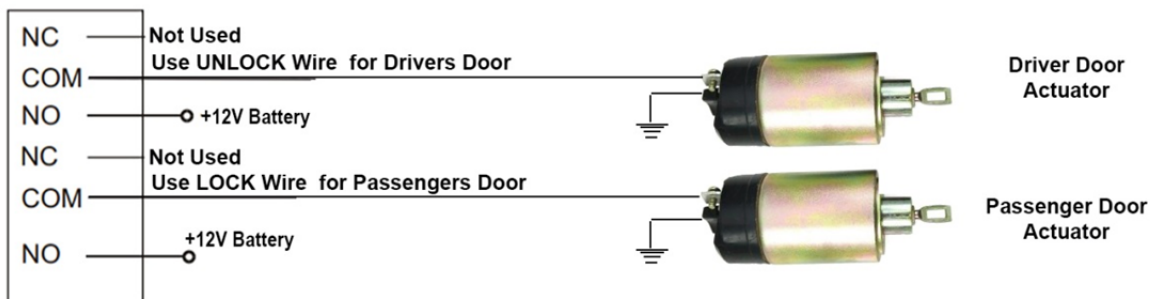
## DOOR LOCK AND UNLOCK CONNECTIONS cont.

**GREEN / BLACK / SILVER — LOCK — N/C — NORMALLY CLOSED**  
**WHITE / BLACK / SILVER — LOCK — COM — COMMON**  
**GREEN — LOCK — N/O — NORMALLY OPEN**  
**BLUE / BLACK / SILVER — UNLOCK — N/C — NORMALLY CLOSED**  
**WHITE / SILVER — UNLOCK — COM — COMMON**  
**BLUE — UNLOCK — N/O — NORMALLY OPEN**



**\*\*\* If you are installing Shaved Doors and Door Poppers see “Special Instructions” at the back of this manual.**

**GREEN / BLACK / SILVER — LOCK — N/C — NORMALLY CLOSED**  
**WHITE / BLACK / SILVER — LOCK — COM — COMMON**  
**GREEN — LOCK — N/O — NORMALLY OPEN**  
**BLUE / BLACK / SILVER — UNLOCK — N/C — NORMALLY CLOSED**  
**WHITE / SILVER — UNLOCK — COM — COMMON**  
**BLUE — UNLOCK — N/O — NORMALLY OPEN**



**\*\*\* The iKey internal door lock / unlock relays are rated at 20A, Should your door popper actuators require a higher amperage add external relays of the correct amperage.**

## ACCESSORY OUTPUT HARNESS 9-pin 20 gauge

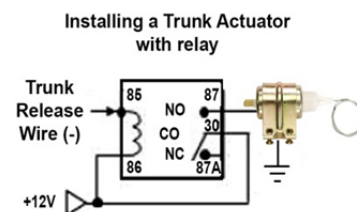


BYPASS /DATA MODULE TRIGGER(-)	GRAY / BLACK STRIPE
BYPASS /DATA MODULE TRIGGER (+)	ORANGE / BLACK STRIPE
TRUNK (-)	BROWN / BLACK STRIPE
HORN / SIREN (-)	PURPLE / BLACK STRIPE
WINDOW ROLL UP (-)	YELLOW / BLACK STRIPE
AUX CHANNEL 2 (-)	WHITE / BLACK STRIPE
AUX CHANNEL 1 (-)	RED / BLACK STRIPE
DISARM (-)	BLUE / BLACK STRIPE
ARM (-)	GREEN / BLACK STRIPE

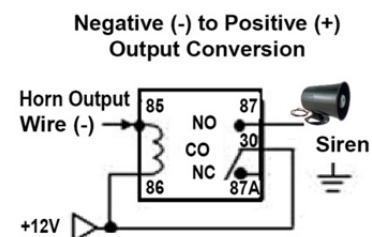
**Gray / Black wire Bypass / Data Module Trigger ( - ) 500mA** This wire is used to trigger a Transponder Bypass or Data control module with a (-) trigger. This wire provides a constant Negative output while the system is in ACC, ON and START modes. This output activates 0.5 seconds before ACC 1 and can be used to activate bypass / data modules with (-) trigger inputs.

**Orange / Black wire Bypass / Data Module Trigger (+) 500mA** This wire is used to trigger a Transponder Bypass or Data control module with a (+) trigger. This wire provides a constant Positive output while the system is in ACC, ON and START modes. This output activates 0.5 seconds before ACC 1 and can be used to activate bypass / data modules with (+) trigger inputs.

**Brown / Black wire Trunk Release ( - ) 500mA** This wire is used to release your vehicles trunk, On vehicles already equipped with a power trunk actuator, connect this wire to the vehicles trunk release wire. If you are installing a new Trunk Actuator as part of your install, you will need to add a relay. Connect as shown in the diagram to the right.



**Purple / Black wire Horn / Siren Output ( - ) 500mA** This wire is used to activate a Horn or Siren. Connect to the negative side of the horn for audio notification. Note: this system is programmed for a muted lock and unlock notification by default. If audible notification is desired for lock and unlock; connect this wire to a siren and change DIP Switch #4 down. If siren control is a positive type or requires more the 500 mA to operate; add a relay according to the diagram below to convert output to positive.



**Yellow / Black wire Window Rollup ( - ) 500mA** Connect to an optional window roll up module trigger input. This wire outputs a (-) 250mA Negative signal for 1 second when you shut off and exit your vehicle.

**White / Black wire "AUX" Auxiliary Channel #2 ( - ) 500mA** Connect to any other accessory you would like to control via your iKey Fob. Press the TRUNK button first, followed by a press of the LOCK button to activate. This wire outputs a (-) 250mA Negative signal for 1 second.

**Red / Black wire "AUX" Auxiliary Channel #1 ( - ) 500mA** Connect to any other accessory you would like to control via your iKey Fob. Press the TRUNK button first, followed by a press of the UNLOCK button to activate. This wire outputs a (-) Negative signal for 1 second.

**Blue / Black wire Factory Disarm ( - ) 500mA** Connect to a factory disarm wire on vehicles requiring an isolated disarm signal. This wire turns off the factory security 500Ms before Unlock.

**Green / Black wire Factory Arm ( - ) 500mA** Connect to a factory Arm wire on vehicles requiring an isolated disarm signal. This wire arms the factory security upon Lock.

## ACCESSORY INPUT HARNESS 7-pin 22 gauge



NEUTRAL SAFETY (-)	—————	BLACK	—————
HOOD PIN (-)	—————	WHITE	—————
DOOR TRIGGER(+/-)	—————	GREEN	—————
BRAKE SWITCH (+/-)	—————	BROWN	—————
NOT USED(-)	—————	PURPLE or EMPTY	—————
TACH (+AC)	—————	YELLOW	—————
WAIT TO START (DIESEL)	—————	PINK	—————

**Black wire Neutral Safety Switch ( - )** Required for Remote Start systems only. Connect this input to a ground source when vehicle is in park or neutral gear position. This will prevent the vehicle from remote starting while in a drive gear.

**White wire Hood Pin Safety Switch ( - )** Required for Remote Start systems only. Connect this input to a Hood pin that switches to Ground when opened. This will prevent the vehicle from remote starting while the Hood is open.

**Green wire Door Trigger ( - / + )** This wire detects when your vehicle door is open. Connect to a Negative (upon open) door trigger signal wire. If door switch is positive trigger type, change jumper J2 to positive (upon open) door trigger.

**Brown wire Brake or Clutch Switch ( - / + )** This wire detects when your Brake is depressed and allows the vehicle to be started. For Automatic transmission vehicles, connect to the cold side of the brake pedal switch that outputs 12V+ when the brake is applied, GND or float when released. For Manual transmissions, change the setting of **Jumper J1** to Negative, then connect this wire to the Negative output from the Clutch Switch. **Note; this wire is required for proper system operation.**

**Purple or Empty wire Not used at this time**

**Yellow wire Tach Signal** Required for Remote Start systems only. Connect this input wire to a suitable tach or engine RPM signal source with at least 1Volt (AC) and 20Hz or faster signal when engine is at the idle speed. Common tach references wires are; The Negative side of an injector, ignition coil or the ECM.

**Pink wire Wait to Start Required on Diesels vehicles.**

Connect to the Negative side of the glow plug dash light. This input monitors the glow plug light for diesel engines and will wait up to 18 seconds until the glow plug light goes out before remote starting the engine. **Note this input is not required for non-diesel vehicles.**

## NEGATIVE IGNITION OUTPUT HARNESS 3-pin 20 gauge



START (-)	—————	YELLOW	—————
IGN (-)	—————	GREEN	—————
ACC(-)	—————	WHITE	—————

**This harness provides 500mA Negative outputs for ACC, IGN & START**

This harness is only used for a vehicle with a Negative start wire or for controlling a Negative operating Ignition system such as ISIS or Infinitybox.

# SECURITY & ALARM FEATURES

The iKey Security & Alarm function monitors the shock sensor, door switch, hood pin, brake and ignition while the system is in the armed state. If the alarm is triggered, the alarm will sound the horn (or siren if installed) and flash the parking lights for 30 seconds. The Status LED will flash Red upon disarm to notify the driver that the alarm function was triggered while away.

**Note: Alarm functions can be Enabled or Disabled via DIP Switch 2**

**If the Alarm function is active:**

All Sensors will arm 5 seconds after the iKey fob leaves proximity.  
The Siren / Horn will sound when the shock sensor, door, hood and ignition triggered.

**If the Alarm function is disabled:**

LED flashes RED-RED-BLUE-BLUE  
The alarm will not sound when the shock sensor, door, hood and ignition triggered.  
The Push-Start system will function normally by iKEY fob proximity.  
After the alarm function is disabled, the security LED will flash purple when armed.

## STATUS LED Dual Color



The system Status LED provides visual indication to would be thieves that your vehicle is protected. The LED can flash Red, Blue, Purple as well as several combinations of sequences, Red, Red, Blue, etc. Using these colors and sequences, the Status LED gives you continual indication of the iKey's operating status, letting you know important information such as which system features are turned ON or OFF or if a violation has occurred while you were away. Although not required, it is highly recommended that the LED be mounted where it can be viewed from both inside and outside the vehicle. The chart below shows the different LED Status Modes.

FEATURE POSITION	DISARMED	ARMED	ALARMING	ALARM NOTIFICATION
PKE ON	Blue / Blue / Blue	Blue / Red / Blue	Red / Red / FAST	Red / Red / SLOW
PKE PERMANENTLY OFF	Blue / Blue / Blue	Purple / Purple	Red / Red / FAST	Red / Red / SLOW
VALET MODE	Solid Blue	Solid Blue	N/A	N/A
ALARM OFF	Blue / Blue / Blue	Red / Red / Blue / Blue	N/A	N/A
ALARM OFF + VALET	Solid Blue	Solid Blue	N/A	N/A
ALARM OFF + PKE OFF	Slow Blue	Red / Red / Blue	N/A	N/A

\* While iKey fob is out of sensing range and system is waiting to rearm LED will flash Red /Blue/Red/Blue

## SHOCK SENSOR Dual Stage



This sensor monitors your vehicle for attempted intrusion and impact. Any impact to your car while the alarm is armed will trigger the shock sensor to respond. It is typically mounted with a ziptie to the steering column. This sensor has dual level of detection, Depending on the severity of the shock, the iKey will react to a full shock by triggering the alarm function (the horn sounds and the parking lights flash for 30 seconds) or respond to a lighter shock (30% of the strength of a full shock) by giving a warn-away alarm by a short honk and flashing the parking lights 5 times. To cancel a shock triggered alarm activation, approach the vehicle with the iKey fob or press LOCK or UNLOCK button.

**To Set the Sensitivity:** Arm the system, then thump moderately on the front fender of the vehicle with your hand and trigger the “Warn Away” chirps. A second hard thump should trigger a full alarming sequence. Use the Adjustment screw to set up the correct sensitivity for your vehicle.

### **DOME LIGHT DELAY** (*DIP Switch 5 / The default setting is OFF*)

This function is for vehicles with dome light delay. If dome light delay function is enabled, the alarm will wait to arm for 30 seconds after locking. If there is any door not closed 30 seconds after locking, the Door Not Closed Reminder Function will be triggered.

The Dome light delay function can be enabled/disabled via DIP Switch 5

If DIP Switch 5 is in the UP position, dome light delay is disabled.

If DIP Switch 5 is in the DOWN position, the 30-second dome light delay is active.

### **AUTO CLOSING WINDOWS** (Additional Window Roll Up Module required)

If window closer module is installed, windows and sunroof left open will be closed in sequence when vehicle is arms and locks.

#### **Need a Window Roll up Module?**

Go to: [www.Digitalguarddawg.com](http://www.Digitalguarddawg.com) products-accessories.



# SYSTEM ANTENNA'S

## MAIN ANTENNA'S Dual Zone



The iKey uses a sophisticated Dual Zone antenna system to allow it to effectively operate on everything from a small sub-compact to full size SUV, the systems dual antenna design guarantees consistent range and performance regardless of vehicle type. The Main Antennas generate a low frequency RF field that extends approximately 4 feet around the vehicle. When you enter this field, the low frequency RF signal triggers the iKey Fob in your pocket to transmit its authorization code to the system.

Because of their function, proper placement of the Main Antenna's is of substantial importance to overall system function. Because of the great difference in vehicle types and sizes, Antenna placement will vary from vehicle to vehicle, but some general rules do apply.

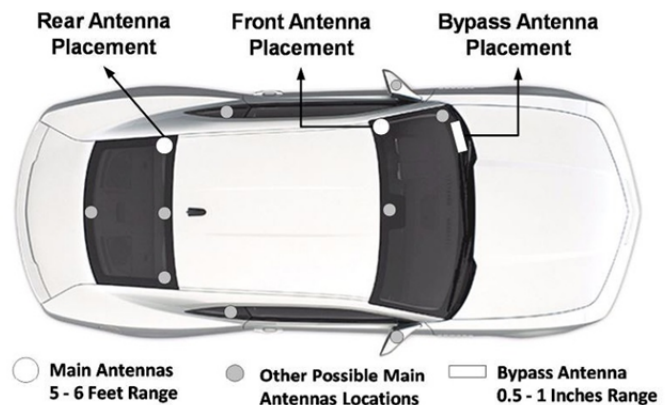
1. Antennas should not be in contact with ANY metal, as this will dramatically reduce the antennas range.
2. Antennas should be placed high above the window line so the signal can extend outside the vehicle.
3. Whenever possible mount antennas horizontally to maximize their output.
4. Take care when hiding antenna wires that they do not get pinched or damaged.

A typical mounting location in most cars is at the top of the windshield, one on each side. For SUV vehicles, often one antenna in the top center of the windshield and one in a far rear window provide coverage from both the front doors as well as access for the rear hatch. In Trucks, often a preferred location is one in the center of the front windshield and one on the center of the rear cab window. Use alcohol to clean the mounting surface, and then use the double sided tape on the antenna back for final mounting

It is recommended to initially do a temporary loose mounting of the antennas, securing them with some tape and performing a Range Test before permanently mounting them and hiding the wires.

**IMPORTANT: Always do your Range Test outside in an open area away from any metal buildings. Testing indoors or near metal building can give false readings do to reflection.**

If you feel it is extremely necessary to completely hide the antennas for your install, depending on the vehicle, sometimes they can be placed inside the "A" pillar or in the headliner. If mounting the antennas in one of these locations, be doubly sure no metal comes in contact with the antenna and preform several tests before permanently securing them.



 **IMPORTANT**

Antenna needs to be positioned away from any type of metallic material to achieve the best reception in all directions. Avoid strain / pull on antenna wiring and do not bend or overlap Main antenna with Bypass antenna.

## BYPASS ANTENNA

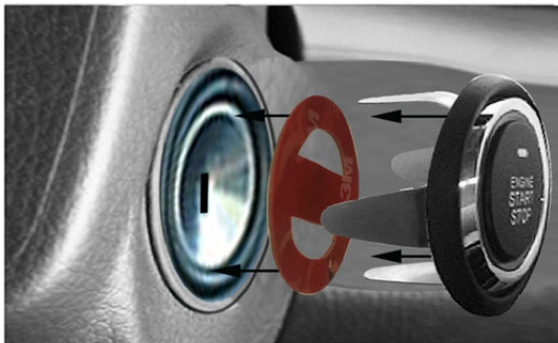
## Used with the Emergency Bypass Card



Should you ever lose or damage your Key fob, the system includes an Emergency Backup Transponder Card to always guarantee you access to your vehicle. This is the same “passive transponder” technology used for access of high security buildings. Just hold the Bypass Card next to your Bypass Antenna for 10 seconds and doors will unlock and you will be able to start your engine. Emergency Bypass Cards are completely waterproof and use no batteries making them perfect as a backup access device. Another Exclusive iKey Feature! The typical location for mounting the systems Bypass Antenna is on the glass where the windshield meets the dash of the driver side of the vehicle. Once the Emergency Card is removed from the bypass antenna, the system will lock and arm after 30 seconds. You must enter and start the vehicle within this 30-second window to avoid triggering the alarm. If a longer disarm time is required leave the Emergency Card on top of the bypass antenna to disarm continuously.

## START BUTTON INSTALL

Start Button Installation will depend greatly on the style Start Button purchased. Billet Button and OEM Buttons generally require drilling a hole to correct size and securing the button. Below is install information on our popular Slim line Lexus® style Start Button. This button can be mounted virtually anywhere, even directly over the existing Ignition switch. If installing over an existing key switch that has a locking steering column, see “Releasing the Steering Column Lock” on the following page before installing the Start Button.



**Lexus Style  
Slim Line  
Start Button**

Insert cut Ignition key into lock cylinder.

Turn to ACC position to release steering column lock.

Stick double sided tape ring onto back of Start Button.

Bend ears of the metal mounting platform so they can fit in between the plastic steering column housing and the metal lock cylinder.

Slide mounting ears over lock cylinder, bending so they fit snugly.

Push the mounting platform securely onto lock cylinder. *(use super glue on inside of ears if necessary to stabilize platform).*

Insert button wires between lock cylinder and plastic steering shroud. Position Start Button as desired.

Place trim ring over switch.



**3M Double Sided Tape**



**Trim Ring**

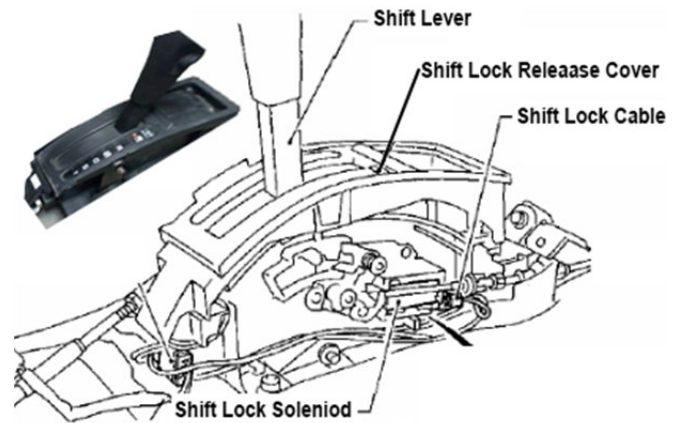


## RELEASING THE STEERING COLUMN or SHIFTER LOCK

Many vehicles still have shifter or steering column locks. Once your install is complete, the Ignition switch will no longer have power running to it and will simply be a mechanical lock. Since most new Push Button Start vehicles no longer have these devices. Part of the Push Button Start conversion will be to release the existing shifter or steering column lock.

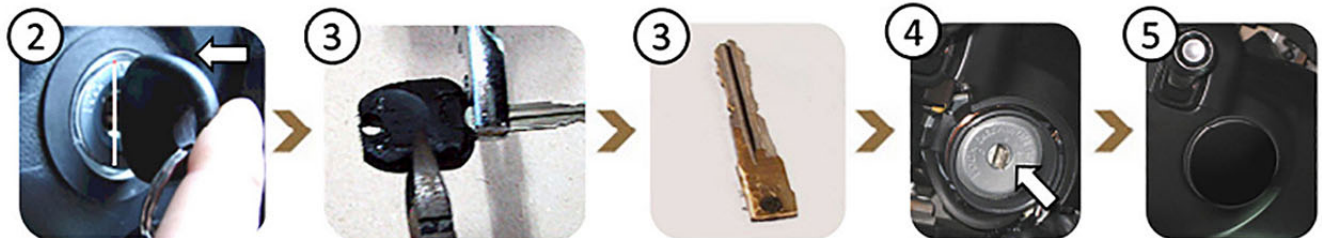
### Shifter Locks:

On center column shifters; simply remove the Shift Lock Cover from the shifter and release the end of the internal shift lock cable.



### Steering Column Locks:

To release a steering column lock, use the “Shaved-Key” method below. We do not recommend disabling the steering column lock permanently by removing the lock cylinder. The Shaved-Key method is an easy and reversible bypass for the process.



1. Have a locksmith duplicate a (non-transponder) Door key.
2. Insert the key into the lock cylinder and mark a cut line  $\frac{1}{4}$ " from where the key blade extends out from the cylinder.
3. Using pliers and a cutter, remove the head of the key at the cut mark.
4. Reinsert the key into the lock cylinder and use a pair of needle nose pliers to turn the key blade to the ACC position.
5. If installing a slim line button on the dash or elsewhere, Lock cylinder covers are available through Digital Guard Dawg.

## GPS DATA PORT

This port is for adding a 4G GPS Guard Dawg Tracker system.

For information go to: [www.DigitalGuardDawg.com](http://www.DigitalGuardDawg.com) or call 877-246-5395



## REMOTE START with One Touch Starting *(Upgrade if Purchased)*

### One Touch Starting

This feature allows you to start your vehicle with just one quick push of the Start Button. The iKEY will crank your starter just long enough to assure your engine is started. You must complete the Tach learning procedure before using the feature

### Remote Start Operation

Now with just a press on your iKey fob you can remotely start your engine to warm your vehicle on the winter or cool it down in the summer. With the iKey outside the proximity sensing range, press and hold the TRUNK RELEASE and LOCK buttons together for 3 seconds. The parking lights and siren (if enabled) will flash and sound 1 time to indicate remote start signal received. After 5 seconds the system will attempt to start the engine. If the vehicle does not start on the first attempt, (i.e. cold engine), the iKey will attempt to start the engine up to 3 times. Once started, the vehicle will run for 15 minutes. Parking lights will remain ON during this period.

### Remote Start Ignition Takeover Procedure

After the vehicle is remote started, use the following steps to take over the ignition without restarting the engine: Approach the running vehicle with a valid iKey fob to disarm the alarm and unlock the doors. Enter the vehicle and without stepping on the brake, press the Start button once. Next, step on the brake to exit Remote Start mode. (Status LED turns OFF) Vehicle is now safe to take out of the park to drive.

### Additional Information about Remote Starting;

- To shut down the remote start, press and hold the TRUNK RELEASE and LOCK buttons again for 3 seconds.
- The Neutral Safety wire must see a ground and the Hood must be closed or the remote start will fail.
- Remote start cannot be used before completing "Tach Learning".
- For diesel vehicle there will be a delay while the vehicle's Wait-to-Start Light is ON. Starting will begin when the light goes off or after 18 seconds the system will proceed to start the engine regardless.
- The engine will shut down after remote start if the RPM is too high. (Example: If floor mat got stuck on gas pedal.)

### Locating a Tach Signal **(Yellow wire of the Accessory Input Harness)**

Connect this input to a suitable tach or engine RPM signal source with at least 1V (AC) and 20Hz or faster signal when engine is at the idle speed. Common tach references are; negative side of an injector, ignition coil, the ECM or Data module tach output.

### Tach Programming

The iKey uses a unique Tach programming process that allows you to set the actual starter crank time via the Tach programming button. This allows the system to provide Remote Start even on most carbureted vehicles.

With the system Authorized, (iKey Fob in range), Plug the Tach Programming Button into the iKey module,\*\* see **Tach Programming Button** "iKey Module overview diagram" next, confirm your Neutral Safety wire is grounded and the Hood Pin is installed and the hood closed. You are now ready to learn Tach. Depress Brake Pedal, as soon as you press on the Tach Programming Button the engine will begin to crank. Release the tach programming button immediately upon engine start. *(The "Release point" establishes the Starter Crank duration time)*



Continue to hold down Brake Pedal for 20-30 seconds or until engine is at low idle. When the Brake Pedal is released it will establish the AC Run Voltage of the Tach Source. If Tach Learning was successful, the parking lights will flash 2 times and the horn honks 2 times. If unsuccessful parking lights will flash 4 times and the horn honks 4 times.

\*If the vehicles battery is disconnected – the iKey still retains Tach learning point data. \*\* If it's necessary to relearn the Tach to change the crank duration - Simply repeat the procedure.

## **Remote Start Safety Features**

The Remote Start will not attempt to start the vehicle until it confirms a ground on the Neutral Safety wire, that the Hood Pin shows the hood closed, (Hood pin at not at ground), and that the Brake is not depressed. While testing the Remote Start, if the system fails to remote start due to a trigger on one of these safety circuits, the system will audibly notify you with a set of “chirps” to let you know which safety circuit is triggered and preventing the system from remote starting.

If fault is caused by:

**Hood Pin = 2 Chirps**

**Neutral Safety = 3 Chirps**

**Tach signal not found = 4 Chirps**

While the vehicle is running after being Remote Started, if any of these safety circuits is triggered, the engine will turn OFF immediately and the horn / siren and parking lights will sound and flash for 10 seconds to notify you that a trigger of a safety circuit as occurred

## **TESTING YOUR INSTALL**

Once complete it is important to test all primary functions of the iKey system.

- 1. Shut all vehicle doors, Take the iKey Fob out of system range, Return to the vehicle WITHOUT the fob. Check that the doors are locked.**
- 2. Pick up the iKey fob and return to the vehicle, Doors should Unlock, Security should disarm and start Button should light up.**
- 3. Without foot on Brake, Push the Start Button once, Accessories connected to the Yellow ACC wire should energize.**
- 4. Push the Start Button again, Ignition and remaining Accessories should energize, Push again to turn OFF.**
- 5. Depress Brake pedal, the Start Buttons LED should begin to flash. Press and hold start button, Engine should crank and start.**
- 6. Depress Brake again, Push Start Button, Engine should turn OFF.**
- 7. Exit vehicle and allow Alarm to arm. Check Shock sensor and door triggers.**
- 8. With doors closed and system armed, Hold Emergency Bypass Card next to Bypass Antenna, confirm doors unlock.**
- 9. If equipped, Test Remote Start. Start / Stop.**

**\*\*\* For assistance with any failure diagnosis a complete interactive testing flow chart can be found at: [www.DigitalGuardDawg.com/support](http://www.DigitalGuardDawg.com/support)**

# SPECIAL INSTRUCTIONS

## For Vehicles with Shaved Doors and Door Poppers

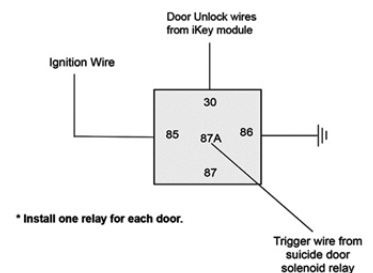
### Set DIP Switch #1 Down / PKE OFF “Permanent” (LED flashes PURPLE / PURPLE)

Setting DIP Switch #1 Down customizes how the iKEY feature groups operate specifically for vehicles with Shaved Doors and Door Poppers. When selected, the Lock and Unlock Buttons are reassigned to “Drivers” Door and “Passengers” Door. System Alarm will disarm upon seeing either door being opened, But vehicle remains secure as the Start Button will not authorize until the key fob comes into range. Alarm will rearm 1 minute after key fob leaves vehicle proximity. When out of proximity range; If either the Unlock / Lock / Trunk / Aux 1 or Aux 2 buttons are pressed the Alarm will Disarm. If no iKey fob enters proximity within 60 seconds the alarm will Rearm in 60 seconds. If a door is left open, the system will send a Door Open Notification of three sets of 2 Chirps 15 seconds after the fob leaves proximity. Note: To Remote Start your vehicle in “PKE OFF PERMANENT” mode the system must have Armed (1) minute before the Remote Start will work

## For Wiring Diagram for Shaved Doors with Poppers (See Door Lock / Unlock Connections)

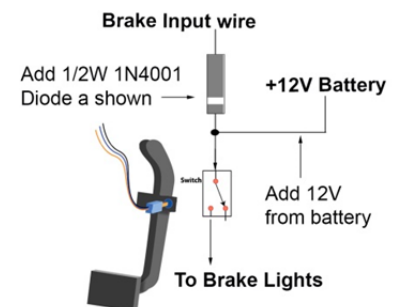
### If you are Installing “Suicide Doors”

Due to the possibility of Power Released Suicide doors opening while the vehicle is moving. It is mandatory that if installing suicide doors you must add a relay protection circuit as shown in here.



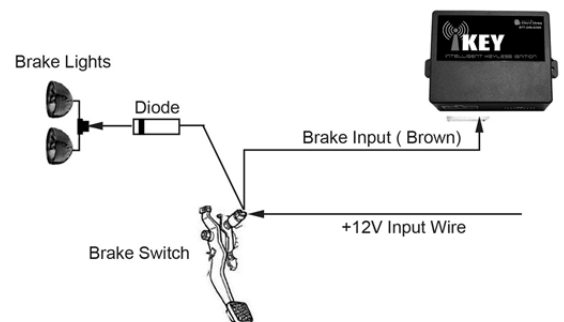
### If you have “Cold” Brake Switch

Some vehicles such as Audi or other European vehicles do not have +12V battery power at the Brake switch until the ignition is switched ON. The Brake switch input will test “Cold” If the vehicle you are installing has a “Cold Brake Switch” you will need to bring a constant +12V source to the Brake switch as shown in the diagram to the right.



### If you have LED Tail or Parking Light

If you have LED brake light, when making your Brake Switch connection you will also need to add a Diode to the brake light wire to prevent feedback from your LED lights. The Diode needs to be placed in line with the wire feeding your LED Brake light with the Diode Band facing towards the lights. Any 1N4004-1N4007 1 Watt Diode will work.



### If you have Holley Dominator EFI system

If you have a EFI system that requires a delayed start so that fuel can be pressurized before cranking, the iKeys “Wait to start wire” can be used along with a PAC TR-7 module to create a timed start delay for remote starting.

Need a TR-9 ? Go to: [www.Digitalguarddawg.com](http://www.Digitalguarddawg.com) products - accessories

# iKey Fob & Emergency Bypass Card Programming

The iKey system can learn up to 4 iKey Fobs and 2 Emergency Bypass Cards, Use the following procedures to program a new or additional iKey fobs and/or Emergency Bypass Card(s). Both iKey fobs and the Emergency Bypass Cards must be present and accessible during programming.

## Entering Programming Mode

### Programming Method 1: If you still have a valid iKey Fob

Disarm the system with a valid iKey Fob.

Switch ignition to ACC, depress and release the brake pedal 3 times then press and release the UNLOCK button on the original valid iKey fob 3 times, the horn/siren will chirp 3 times, the system's Red/Blue status LED will turn solid Red indicating the system has entered **iKey Programming mode**.

### Programming Method 2: If you don't have a valid iKey Fob

Disarm the system with your Emergency Bypass Card.

Switch ignition to ACC, depress and release the brake pedal 3 times then press and release the UNLOCK button on the Replacement iKey fob 3 times, the horn/siren will chirp 3 times, the system's Red/Blue status LED will turn solid Red indicating the system has entered **iKey Programming mode**.

## Programming iKey Fobs and Emergency Bypass Cards

Once you have entered iKey programming mode, begin programming by pressing and holding the LOCK button on the 1st iKey fob for 3 seconds until the horn honks once. Then within 10 seconds repeat the same procedure for the 2<sup>nd</sup>, 3<sup>rd</sup> or 4<sup>th</sup> iKey fob, the horn will honk 2, 3, or 4 times indicating how many iKey fobs have been entered into the systems memory. Next, the status LED will turn Blue indicating the system is now ready to learn the Emergency Bypass Cards. Within 10 seconds hold the 1<sup>st</sup> Bypass Card to the Bypass antenna until the horn honks once. Then hold the 2<sup>nd</sup> Bypass Card to the Bypass antenna, the horn honks twice. Wait for 3 seconds, the horn honks 5 times then the system exits programming mode.

## Frequently Asked Questions

### Why is the Door Unlock range is very short?

Check battery voltage in the iKey ob. Verify antenna position; antenna may be close to a metallic material, change position or orientation to increase range sensitivity. Check for damage to the antenna wire jacket; ensure antenna connectors are firmly seated.

### I'm having a hard time learning the tach signal with my LS motor help.

The LS motor is notorious for having a dirty tach signal, try another location or use a tach generator to get a clean tach signal. **Autometer model 9117** is a good tach generator <https://www.summitracing.com/parts/atm-9117>

### The vehicle start but immediately stops

Does the vehicle have an immobilizer? The vehicles immobilizer can cut fuel and or spark during an unauthorized start and it needs to be bypassed using a Bypass or Data module..

### The vehicle starts but the start over or under cranks.

Relearn the tach signal or go to another tach source Hold the Tach programming button down longer or shorter to adjust crank time.

### Why do I have to press the start button twice to start the engine?

This is due to having a cold brake switch, see Special Instructions – Cold Brake Switch diagram for solving this issue.

For useful technical material please visit our website at [www.Digitalguarddawg.com/support](http://www.Digitalguarddawg.com/support)