

2 GO KEYLESS™

PBS I

RFID Push Button Start System



DIGITAL
Guard Dawg

World Leader In Keyless Technology

PRODUCT SAFETY AND LEGAL DISCLAIMER

- This product shall be installed by a certified technician therefore a certain level of competence and knowledge are therefore assumed when reading this guide.
- This guide is provided as a GENERAL installation instructions and vehicle subjected to installation maybe different.
- This product is designed based on vehicle regulatory standard. Please observe your local public road traffic law and regulations prior to installation.
- Exercise due-diligence when installing this product. The manufacturer 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 manufacturer/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/distributors of this product does not guarantee this particular version will be available at a later date.

PRE-INSTALLATION CONSIDERATIONS

- Carefully read and understand the User Manual, Installation Guide and Electrical Service Information for the subjected vehicle before begin work.
- Install in a well-lit, dry, covered area away from the elements and keep at least one window open at all time during installation. Do not leave key inside ignition switch and /or detection range. Prepare all tools required for the installation. Special tools maybe necessary depending on vehicle.
- Verify the vehicle has proper grounding and does not have any outstanding electrical/functional issue prior to installation.
- To avoid short circuit, it is recommended to pull-out related fuses before installation and put them back when installation is complete.
- Only locate necessary wires related to the installation (most required wiring are under driver dash/kick panel areas) and connect to the unit according to the wiring diagram. Use a Multimeter to verify and confirm wire's function, polarity before connecting or disconnecting. We strictly prohibit testing or modifying the vehicle's ECU, airbag and ABS systems.
- Begin function tests on the system after verifying and ensuring all wires have been connected correctly and insulated properly.



DO NOT power up the module before it is properly grounded.
Should the unit be powered before being grounded, serious damage to internal components could occur.

2Go Keyless™- Intelligent Push Button Start system. This first of its kind product gives your car complete "Hands Free" convenience just like found on the worlds finest luxury automobiles. Originally designed for and exclusively sold to a select group of custom builders. Now this cutting edge Keyless Ignition system is available to every auto enthusiast who's ever dreamed of "Going Keyless"

2Go Keyless™- Intelligent Push Button Start completely eliminates your vehicles ignition switch and lets you securely operate your vehicle with just the push of a button! Simply carry one of the systems digital RFID "iTag™" with you. As you come into proximity of your vehicle, **2Go Keyless™** verifies your identity, pre-authorizes your ignition and with just the "Push of a Button" you're engine roars to life!



System Overview

The **2 GO KEYLESS™ Intelligent Push Button Start** system consists of:

The Ignition Control Module (ICM), (2) Power Harnesses, (1) Accessory Harness, (1) Programming Button, an Emergency Bypass PIN Card along with a Start Button and one or more system iTag™ .

The systems iTag™ is a motion activated RFID device that automatically communicates with the Ignition Control Module as you move within proximity of your vehicle, (Typically about 10 feet). Each iTag is completely unique with over 6 billion different codes. A single iTag can be programmed into multiple vehicles allowing its user to operate all his / her vehicles, motorcycles, boats or other toys by carrying just one iTag™.

The Ignition Control Module (ICM) provides two functions, it communicates with the system iTag™(s) and provides switching operations for your Ignition, Accessory and Starter circuits.

Basic installation consists of; mounting and connecting the Start Button, mounting the ICM *under your dash*. Connecting the 3 or 4 wires from your vehicles Ignition switch to the ICM along with any Accessory Harness connections appropriate for your particular installation. Then lastly, testing your system.

There are a few different ways to install **2 GO KEYLESS™** :

New Ignition Installations

A fresh installation where you are installing all ignition wiring from scratch.

▶ Retrofit Installation for Customs, Hot rods and Vintage vehicles

An installation where you are replacing an existing traditional ignition key system.

▶ Newer Vehicle Installations

An Installation where locking steering columns or security "chip" keys are a consideration.

▶ New Ignition Installations

On a fresh build where you are installing all your wiring from scratch, installation is as easy as wiring in a traditional Ignition switch. Generous harness lengths allow for great freedom of choice of module and Start button placement. **2 GO KEYLESS™ Intelligent Push Button Start** even lets you choose how you would like to configure the systems operation. *See Installation Diagrams

▶ Custom, Hot rod or Vintage vehicles

The **2 GO KEYLESS™ Intelligent Push Button Start** adds an elegant touch of technology to any vehicle. Our advanced and versatile design using only professionally quality components lets **2 GO KEYLESS™** fit right into even the worlds most elite vehicles. Straight forward easy to understand directions make replacing a traditional ignition key system an enjoyable afternoon's project.

▶ Newer Vehicle (with a locking steering column or security "chip" keys)

Rather than connecting every wire of a modern ignition switch, the **2 GO KEYLESS™ Intelligent Push Button Start** can be installed as an "Ignition Switch Controller" on most newer vehicles. This simple **two wire** installation allows **2 GO KEYLESS™** to control all ignition operations through the existing switch. It completely eliminates any need to use a key to start your vehicle, while leaving the existing locking steering column or manufacturer security key systems in place. *See "Newer Vehicle Discussion" and "EZ Installation" pages.

Basic Operation

Turn On Accessories

Push Button Once

To Start Vehicle

Push Button until engine starts.

To Shut Off Vehicle

Push Button for 2 Seconds

NO BRAKE APPLIED



BRAKE APPLIED



BRAKE APPLIED



System Information

The PBS II has six different modes:

3 Operation modes & 3 Programming modes

Operation modes

ACC Mode	Only Vehicle Accessory Circuit is turned ON
Start Mode	Ignition & Accessory Circuits are ON and ready to start.
Armed Mode	System is Armed, Start Button has NO functionality

Programming modes

Feature Selection Mode	Allows selectable features to be turned ON/OFF
iTag™ Learn Mode	System can learn a Replacement or Additional iTag™
Emergency Bypass Mode	Allows vehicle to be started using PIN# from Owners Card

ACCESSORY Mode The PBS II also allows you to turn on only selected vehicle Accessories, (such as your radio) without the need to start your vehicle. To turn on only Accessories, simply press the systems Start Button one time Without pushing the brake pedal. The first push will activate the systems ACC # 2 circuit, a second push will additionally activate the ACC #1 & Ignition circuits.

Starting Mode This will likely be your most commonly used mode in daily operation. As you approach your vehicle and the iTag™ is recognized, The systems Start button LED will light up. Once you have entered your vehicle, put your foot on the Brake (*The Start Button LED will then begin to flash*) The LED is flashing it is your indication that the vehicle is ready to be started. Once the LED begins flashing simply depress and hold the Start Button until your engine starts.

Armed Mode The PBS II automatically arms and locks out your vehicles ignition from being able to be started 20 seconds after the iTag™ leaves the vehicles proximity. (About 10") When the system is ARMED the Start Button has NO functionality

***** Note at any time you can move directly to START mode by simply putting your foot on the Brake and pushing the Start button.**

System Components

The iTag™

i Tag's™ represent the latest innovation in security technology. Each iTag™ is completely unique, with over 6 billion different code combinations. iTags™ can be switched to operate in either **Automatic** or **Manual** modes giving you complete control of how and when the system arms and disarms. Slide open the case to reveal two hidden buttons that give you remote control of all the extended features any car enthusiast could ever ask for!



On the PBS I the 2 iTag transmitter buttons are used only for switching the system between “Manual” Mode or “Automatic” Mode.

Manual & Automatic Modes:

The 2 GO KEYLESS™ PBS II Intelligent Push Button Start has two modes of operation “Manual” and “Automatic”.

In Automatic mode the functions of Enabling or Disabling your ignition occur without any action on your part, other then having the ITag™ present.

In Manual mode the ITag™ button must be pushed to transmit the code to disarm the system.

Manual operation may be desirable at various times, initially during installation and set up, *(because it allows you to specifically test operation without ITag™ range being a factor)*. Secondly, you may want to put the system into Manual mode at times when are near your vehicle but do not want the system to disarm, such as at a car show. Changing between modes is accomplished through a simple sequence of pushes of the ITag™ button.



The iTag™ LED provides visual status of which “mode” the system is in: “Manual” or “Automatic”

Note: ITag™s are shipped in Manual mode.

You will want to keep your ITag™s in manual mode until you have completed your system installation. Once you have completed initial system testing, you will switch your ITag™s into “Automatic” mode for final testing and be able to use your system in a “Hands Free” manner.

* If you purchased a “Spare” ITag™ and plan to store it as a back up, storing it in Manual mode will preserve battery life.

“Check” or “Change” modes.

To “Check” which mode you are in Manual or Automatic:

1. Simultaneously push and hold BOTH the buttons on the ITag™ until the LED goes OUT.
(Approximately 6 seconds)
2. When you release the buttons the ITag™ will tell you what mode it is in by flashing either 3 or 5 times.

3 Flashes = Automatic Mode 5 Flashes = Manual Mode

To “Change” from Manual mode to Automatic mode:

Repeat the same sequence as you did to check the mode, **BUT** after the ITag™ finishes its “3 or 5 Flash Back” **QUICKLY** push both buttons again and look for the LED to “Flicker”. The flicker will confirm the mode has been changed. Modes toggle from Manual to Auto then back again. If you are ever unsure if you completed a mode change you can always do a “mode check”.

The Ignition Control Module (ICM)

*** **IMPORTANT** Always mount the ICM inside of your vehicle, **DO NOT** mount in the engine compartment!

The **2 GO KEYLESS™** ICM provides two functions. It contains the systems receiver and reader components that handle communication between your vehicle and the iTag™. Secondly, the ICM houses a group of high current 60 AMP Relays that provide all switching operations for the Ignition, Accessory and Starter circuits. By bringing all the system relays on board **2 GO KEYLESS™** eliminates the "spaghetti look" of hand wiring multiple external relays.



All wires are professionally terminated using Molex® high current connectors that plug and lock securely to the ICM. Independent switching of accessories allows **2 GO KEYLESS™** to be configured in several different ways: One Accessory circuit can be turned **OFF** during starter "crank" to reduce battery load while your Ignition circuit stays **ON**.

The Start Button

The 2GoKeyless Start Button puts all your ignition switch functions right at the touch of your finger tip. You can choose to turn on just your Accessories to listen to your radio or push again to activate your heater or cooling fans. At any time, if you're ready to start your vehicle, simply put your foot on the Brake pedal and push the Start Button.

The Start Buttons LED illuminates whenever your valid iTag is in range and flashes when ready to start. Generally mounted in the vehicle dash or center console, the "Start Button"

provides one touch operation of your vehicles ignition system. Designed to mimic a natural "starting feel". The starter will continue to crank as long as the Start Button is depressed. If you fail to start your vehicle during the first crank you may need to push the start button twice to re-initiate the "Crank" mode.



The Programming Button

The systems "Programming Button" plugs into the connector on the side of the ICM.

The Programming Button serves several functions. It is used to add or replace additional iTags™ into your system, and In the unfortunate event that you were to lose your iTag™ and were without a spare, you would be able to start your vehicle by using the Programming Button to enter your unique PIN# into the system. This PIN # can be found on your system "Owners Card".

You may choose to install the Programming Switch as part of your system installation or store the Programming switch in a secure location, such as your trunk until such time it may be needed.



Owners Card for Emergency Bypass:

Included in your **2 GO KEYLESS™ - Intelligent Push Button Start** system is an "Owners Card with your systems unique 4 digit PIN#. This number should be kept with you whenever you drive. The PIN # on the card is entered into the system via the Programming Button to bypass the system in the event of a lost iTag™.

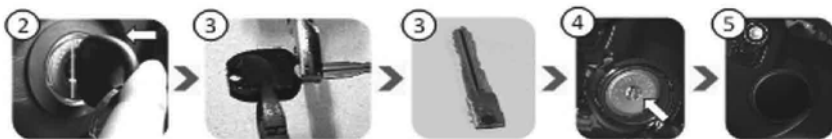


If installing on a newer vehicle there some factors to consider before starting your installation.

- ▶ **Do you have a “Locking” steering column?** For almost 30 years now vehicles have had one or another type of “Locking Steering Column” system. These range in design from mechanical to electronic, simple to complex and can be *easy as pie to harder then # @ ?!* to remove. An initial consideration as to your installation is what you plan to do with it if you have a locking steering column.
- ▶ **There are a couple of approaches.** First, if you are mechanical and feel up to the work, these column locks can be removed. One of the best sources for information for any vehicle is a qualified body shop. They remove and replace column locks frequently as a matter of repairing attempted auto thefts.
- ▶ **If you are less inclined, don't worry there are other options.** One popular option is the **cut key method**. This method sacrifices an existing key to have its “head cut off” By doing so, the cut key can be left in the ignition switch. With the switch turned to the ON position, the steering column remains unlocked. Many switches can be easily hidden with a cap or cover.

STEERING COLUMN LOCK BYPASS

To achieve complete keyless ignition, OEM steering column lock anti-theft feature needs to be bypassed. We do not recommend disabling the steering column lock permanently by removing the cylinder lock, however the “Shaved-Key” method is an easy and completely reversible way to bypass this function:



1. Have a local locksmith duplicate a factory key **WITHOUT** a transponder “Chip” in the key.
2. Fully insert the key into the lock cylinder and use a marker to mark where it meets the lock cylinder
3. With the help of pliers and cutter, cut off the head of the key 1/4 “ inch above the marking.
4. Insert the shaved key into the key cylinder and use needle nose pliers to switch to ACC position.
5. Optionally, cover the key cylinder with one of our vinyl key covers to conceal the key cylinder.
6. Bypass vehicle ACC and Keysense input as shown in the following Wiring Diagram.

- ▶ **Does your vehicle have a security chip in the key ?**

Many newer vehicles also have some type of “chip in the key” as part of a factory security system. If your vehicle has one of these systems this will need to be addressed for the **2 GO KEYLESS™** to work correctly. There are several ways this type of installation can be approached. Either by removing the keys “Chip” and attaching it behind the ignition switch so the factory system still reads it, or by purchasing a “Factory Security Bypass Module” . These are available from through most vehicle alarm distributors or shops. They are commonly used when installing a remote start system. They wire into the factory system and automatically give the factory system the code it needs to deactivate.

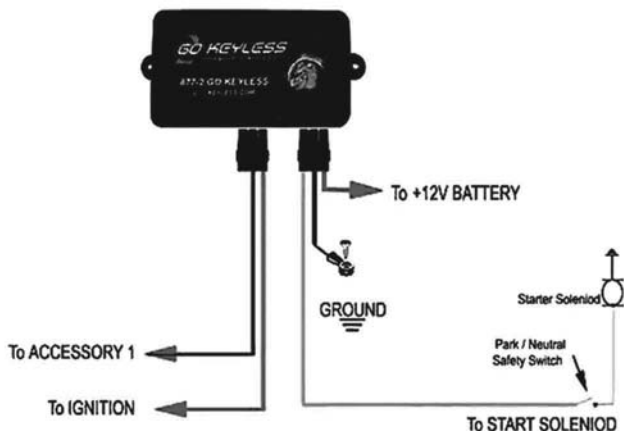
- ▶ **Determining what type of chip in the key do you have?**

There are two basic types; one has the “Chip” in the head of the key, (*Toyota, Ford and Chrysler to name a few) and the other type which has the chip in the keys shaft (*this looks like a black dot in the key shaft and was popular in older GM vehicles*) If you are leaving a “Cut key” in the lock, and you have the chip in the keys shaft, there's nothing more to do; since the chip remains in the lock. On the other hand if you have the *chip in the head of your key* and must cut off the head of the key, you may want to reuse the cut off key head which houses the “chip” . It can often simply be attached to the ignition lock from behind where the factory security system can read it and bypass the factory system. If you damage the chip during cutting the key or prefer a wire in system, you can purchase a third party “Factory Security Bypass Module”

Ignition wiring installation types

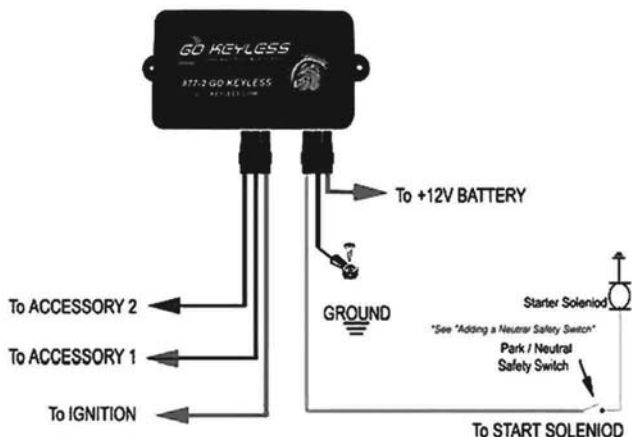
TYPE 1

In the Type 1 configuration both the IGNITION and vehicle ACCESSORY #1 activate the moment the start button is depressed and remain powered during the entire time the starter is Cranking. This configuration work fine on basic 3 wire ignitions systems

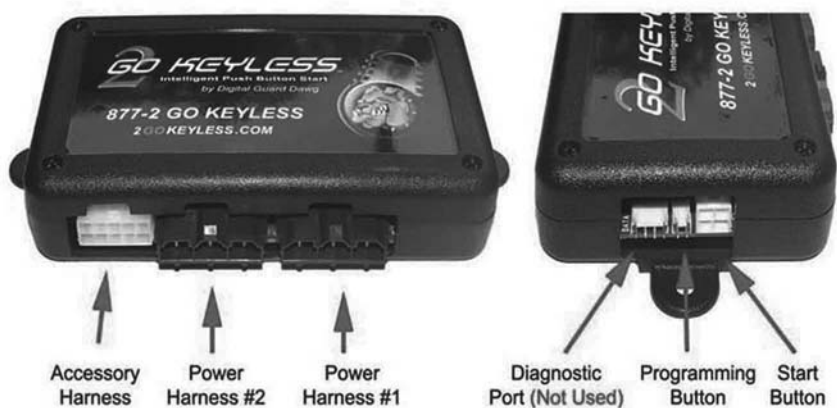
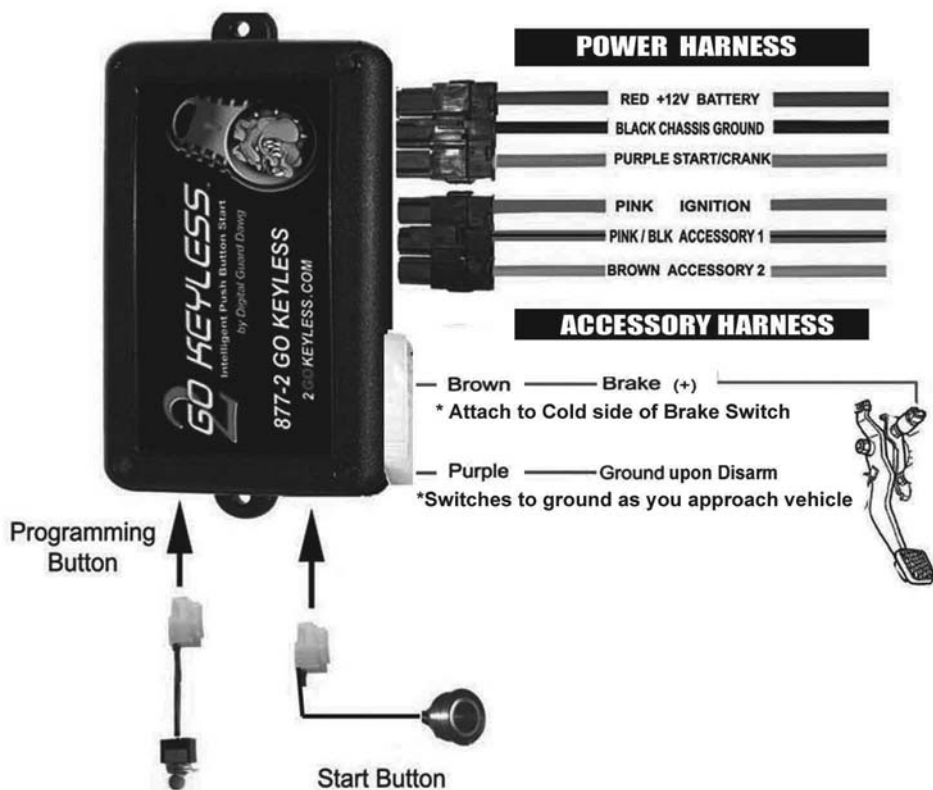


TYPE 2

In the Type 2 configuration Accessory #2 is added. Accessory #2 turns OFF during starter cranking, but is separately controlled by the first push of the start button when putting the system into Accessory Mode. This circuit is designed for connecting any Accessories you would like to independently turn on while the vehicle is not running; such as Radio, Heater fan, Lighting etc.



IGNITION CONTROL MODULE DIAGRAM



TESTING YOUR SYSTEM



Testing The System

Once you have completed your installation use the following instructions to test the system.

Initial testing is done with the iTag™ in **Manual mode**. In manual mode your proximity to the vehicle will not matter.

First test the Start button and Ignition system:

- ▶ Exit the vehicle and wait 60 seconds for the system to Arm.
- ▶ The LED in the Start button will go OFF,
- ▶ Depress the **Unlock Button** on your ITag™, this should disarm the system.
- ▶ Get in the vehicle and start you engine.

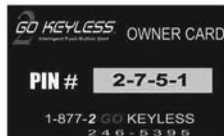
Assuming all went well, next test the automatic operation of the ITags:

* If you have more than one ITag™, test them one at a time. Complete a test of each Tag then proceed to the next.

- ▶ See: **Manual & Automatic Modes** earlier in this manual and find the instructions to put ITags into Automatic mode.
- ▶ Switch your first ITag™ into automatic mode.
- ▶ Walk 50+ feet away from your vehicle and set the tag down.
- ▶ Walk back to your vehicle wait 60 seconds and confirm the Start Button LED is flashing.
- ▶ Enter and attempt to start the vehicle. ***It should not start.***
- ▶ Go back pick up your ITag™ and walk to the vehicle.
- ▶ Now get in and Start your engine!

EMERGENCY BYPASS CARD

So that you are never let stranded unable to start your vehicle, The 2GO KEYLESS system has an “Emergency Bypass” Mode which will allow you to start your vehicle by using a unique PIN# that can be found on the “Emergency Bypass Card”



that came with your system. This is an important number to keep with you so put the card in your wallet or write the number down where you can find it if needed. To enter Emergency Bypass Mode, when the system is ARMED, simply **depress and hold down the brake, then push the systems Programming Button 10 times**, The LED will begin flashing fast. Next, Using the **4 digit PIN#** from your Owner Card. **Enter the first number by pushing the Programming Button the number of times equal to the first PIN number.** EXAMPLE: if your PIN# 5 - 4 - 3 - 2, While the LED is flashing fast, you would begin by pushing the Programming Button “5 times” then stop. The LED will go OFF for 1 second after each number has been entered indicating it has accepted the first number, then enter then 2nd number of your PIN in the same manner, followed by the 3rd and Final number. After the final PIN# has been added, (If it is correct) **the LED will turn ON solid** indicating the system has been bypassed and is ready to start. Just take your foot off the brake, and you can now either push the brake and start the vehicle or enter Accessory Mode by pushing the button one time.

iTag Learning Mode

The 2 GO KEYLESS system has the ability to learn up to 5 unique iTag Transmitters.

Should you ever want to add an additional Tag for a spare or replacement, you can use the following instructions to program a new tag(s) in to your system. *** If you have lost all tags to your system and need to add a replacement iTag, you will need to gain access to the system by first using the “Emergency Bypass” sequence first, then proceed into “Tag Learning Mode”

Before beginning, be sure all iTags are placed into “Manual Mode” (see iTag Operation)

To Enter “iTag™ Learning Mode”, Put system in Accessory Mode, by pressing the start button one time without putting your foot on the brake. Once in Accessory Mode, put your foot on the brake and continually hold it down. Next, **press the programming Button 10 times.** The LED should begin flashing fast then turn ON solid. Next, (Within 5 seconds) push and **Hold Down the Lock Button** of the first iTag you wish to program in your iTag is programmed and you can add additional iTags™ using the same method up to a total of 5 iTags per system. When you have add all iTags you wish to add to the system, Simply wait, and the system will automatically exit iTag Learning mode 10 seconds after your last TX was added to the system. The LED will flash very fast then return to a slow flashing indicating the system has exited Programming Mode. Next test to be sure your iTags are programmed before switching the system Off and rearming.



***** IMPORTANT NOTE: When you enter iTag Programming Mode ALL system Transmitters are erased from the systems memory.**

RESOURCE INFORMATION

Getting a Copy of Your Vehicles Wiring Diagram.

An excellent source we have found for getting vehicle specific wiring information online along with complete installation notes is:

www.ReadyRemote.com/main.asp

Be sure to choose the "Remote Start" under the Product Tab.

You can enter your Year, Make and Model vehicle and learn wire colors and best locations.

Another excellent resource for door lock, power window wiring or general relay diagrams is: **<http://www.the12volt.com/info/diagrams.asp>**

Product Warranty

Warranty Statement

The **2 GO KEYLESS™** Intelligent Push Button Start System from Digital Guard Dawg, Inc is guaranteed to be free from defects in material and/or workmanship and to perform as advertised for a period of 1 year from date of purchase when properly installed, used and maintained in accordance with the installation instructions. Failure to adhere to and/or comply with the installation instructions will void all associated warranty obligations. Should any part(s) prove defective within 1 year from date of purchase, it (they) will be replaced F.O.B. our factory without charge provided the defective part(s) is returned to our factory.

Digital Guard Dawg, Inc is not responsible for labor charges, loss or consequential damage of any kind or character caused by defected parts or charges incurred in the replacement or repair of defective parts by the Purchaser. Careless handling, including that by freight companies, and improper installation or use may void all warranties.

Question or comments regarding this product or it's warranty can be sent to:

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