

DIGITAL Guard Dawg™ PERSONAL RECOGNITION SYSTEM



Owners Manual Installation Guide

Congratulations on your purchase of the new *Digital Guard Dawg™ Personal Recognition System*. Digital Guard Dawg™ is proudly manufactured to the highest quality standards by people who really care. We use only premium materials and electronic components to ensure you a product of excellent performance and superior life.

We hope you enjoy a genuine sense of security from owning the Digital Guard Dawg™. Many Thanks,

"The Dawg House Gang"

Getting to know "The Guard Dawg"

Do you ever wish you had your own personal guard dog to protect your motorcycle whenever you weren't there? With the new Digital Guard Dawg™, Personal Recognition System™, Now you do!

"The Guard Dawg" delivers a level of convenience and protection previously unavailable from any other motorcycle security product.

Simply carry one of the systems' "Dawg Tags™" in a pocket or on your key ring. then, "Just Walk Away" Digital Guard Dawg™ automatically arms and immobilizes your bikes starting system, protecting it from potential thieves. When you return to within 10' feet, Digital Guard Dawg™ recognizes the unique identification code transmitted by your Dawg Tag™ and automatically disarms. **It's just that easy, Your bike only starts when you're there!**

The Guard Dawg is also very high tech. Through the use of advanced micro-electronic circuitry, Digital Guard Dawg™ interfaces into your motorcycles electrical system by simply replacing the existing starter relay. This revolutionary design provides easy installation without cutting any factory wiring and without taking up any additional space. Since the Guard Dawg looks identical to the original factory relay it replaces, **it's completely invisible to potential thieves!**



"Dawg Tag"™

RFID (Radio Frequency Identification Device)
Motion Activated - Fully Passive Operation
Over 6 Billion unique codes. Similar to
Personal Recognition Systems found
on Corvette's and Mercedes.



The digital "Dawg Tag™" begins Hands-free communication with the Smart Relay when the rider approaches within 10' feet of the motorcycle.

**No Buttons to push, No Keys to find,
No Codes to try and remember.**

Just get on and ride!

System Components

Your Kit Includes:

- 1 Dawg Tag™
- 1 Smart Relay
(either DGD-1 or DGD-2 as specified)
- 1 "U" Connector for battery wire



RFID - "Dawg Tag"™

Radio Frequency Identification Device

Operates with either DGD-1 or DGD-2 Smart Relay's.

Smart Relay's



Pt# DGD - 1

*Full Size
Smart Relay*



Pt# DGD - 2

*1/2 Size "Micro"
Smart Relay*

With over 300 components inside, Digital Guard Dawg's™ revolutionary design uses advanced micro-electronic circuitry to provide a complete security system without cutting any factory wiring and without taking up any additional space.

Tools you may need

To remove the seat or side panel of your motorcycle you may need a screwdriver or two. The only actual tools needed for the installation of Digital Guard Dawg™ are a pair of **wire crimper / strippers** to strip and attach the "U" connector. and a **box wrench** to connect it to your battery +12 terminal. *Custom bikes also require a test light to check polarity.*



"U" Connector

*Attaches to relay power wire
and motorcycle battery terminal*



Getting Started

A few things to do before starting.

1. - Read the installation instructions once through completely before beginning. Being familiar with the system components, their functions and the installation process will speed your actual install.
- 2 - Start your bike and make sure it has a good strong battery; an old or weak battery will begin to show difficulty when new electronics are added to your motorcycle.
If your battery is weak, replace or fully charge it before beginning your installation.
3. - Begin with your Ignition switch turned OFF and the key removed.

Relay Fitment

There are 3 different sizes of Harley-Davidson ® Starter Relays



Pt# 31504-91 A / B
or 31506-79 B



Pt# 31579-04



Pt# 31522-00 A / B / C,
31511-01 A & 31601-04

Relay Colors
may vary

DGD - Type 1 Smart Relay

Replaces:

OEM Pt# 31504-91A / B, 31506-79 B
and 31579-04 using adaptor DGD-AD1

WILL FIT:

1999 and older Softail ®
2003 and older Sportster ®
1999 and older Dyna ®
1999 and older Touring ®

2000-2006 Touring ® may be either Type I or II, *Check First*

2004-2006 FLHR / C/S ® are Type I but require adaptor pt# DGD-AD1 ***see page (10)

DGD - Type 2 Smart Relay

Replaces:

OEM Pt# 31522-00 A / B / C,
31511-01 A & 31601-04

WILL FIT:

2000-2006 Softail ® Twin Cams
2004-2006 Sportster ®
2000-2006 Dyna ®
2002-2006 V-Rods ®

Occasionally we have found bikes installed with a different relay than what may be listed in the factory technical manuals, "If the Digital Guard Dawg Relay you received doesn't look like the relay installed in your bike call us direct at 916-337-1040 for assistance.

STEP 1 Locate & Remove the Starter Relay

The first step in the installation of the Digital Guard Dawg™ system is to locate and remove your bikes existing Starter Relay.

YOUR OWNERS MANUAL WILL TYPICALLY SHOW ITS LOCATION. or if you don't have a manual:

On most H-D® bikes the Starter Relay is in one of three places.

- A. Under the seat - Exposed
- B. Under the seat - Housed inside a electrical box
- C. Behind one of the side covers

Common Starter Relay Locations

Under the seat exposed or in an electrical box



Examples

2002 Sportster®

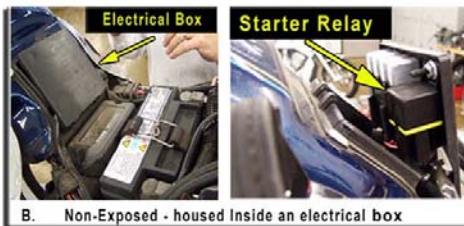


A

2000 Touring®

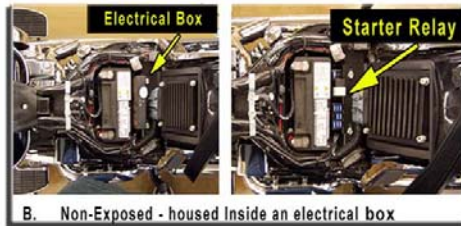


1998 Softail®



B

2005 Softail®



2005 Sportster®



C

2006 Dyna®



Locate & Remove the Starter Relay

Continued

Verifying you have the correct relay

Some newer bikes with additional accessories may have more than one relay under the seat or in their electrical box. These additional relays are used for lights, horn, EFI systems etc. If you have any a doubt as to which relay is the "Starter Relay" You can verify it by performing the following test:

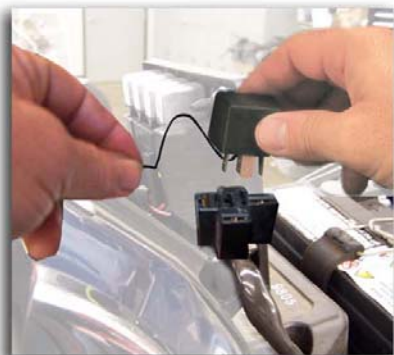
*Remove the relay you believe is the Starter Relay and try to start your bike. If you have removed the correct Starter Relay, **Normal lights will come ON but your motorcycle WILL NOT CRANK.** If it Cranks but does not Start you have the **Wrong Relay.** If the bike still Starts or Cranks, replace the relay and try another until the correct Starter relay is located.*

If your bike is a custom

Read page (9) for additional information "Ignition Relay installs"

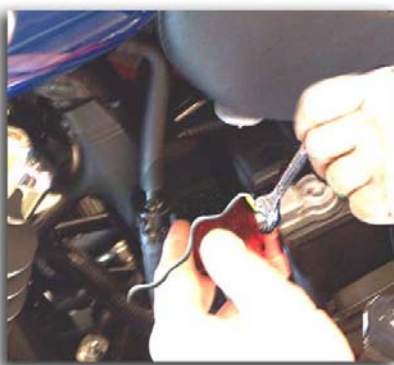
STEP 2 Installing the Smart Relay

Simply plug the Smart Relay into the socket that you removed the Starter Relay from. * Note that the legs must align in a particular direction to fit correctly. Take care to keep the thin black wire coming from the Smart Relay off to the side and out from under the legs of the relay. Be sure to fully insert the relay tightly into the socket. *** For 2004-2006 FLHS C/S use adaptor DGD-AD1 between relay and socket. To order see page (10)



STEP 3 Attaching the +12 Volt Connector

Next, attach the black wire coming from the Smart Relay to your battery +12 volt (Red) Positive terminal. Before making your connection, find a suitable path to run the wire. Cut the wire to the correct length and strip back $\frac{3}{8}$ inch of insulation, then **tightly crimp** the "U" connector (provided) onto the bare wire end. Next, attach the "U" connector to your bikes +12 volt positive battery terminal and **tighten securely**, a poor connection could result making your bike hard to start. **Connecting to any +12 volt terminal, so long as it is direct to battery is also acceptable.**



Visit us on line at
www.digitalguarddawg.com
for more Installation Information

Testing the System

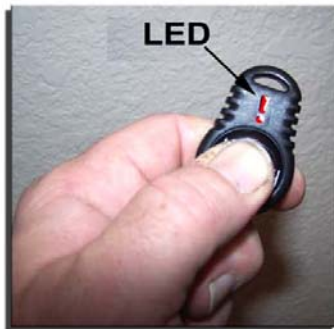
Follow the directions below **exactly** as explained to fully test the operation of your new Digital Guard Dawg™ system.

Pre-Test

A- Depress the label on the face of the “Dawg Tag™” until the LED light comes **ON**.

B- Next, attempt to start your bike as you normally do. Your bike **SHOULD START**.

If it doesn't start see "Trouble shooting" section "B"



Final Testing

A- Walk 30' feet + away from your bike and set the “Dawg Tag™” down.

B- Wait 20 seconds for the system to arm.

Don't start counting until after you have set the Dawg Tag™ down.

C- After 20 seconds has past, without touching the Dawg Tag in anyway, try to start your bike as you normally do. Your bike **SHOULD NOT START**. Next, turn your key off and remove it. **If it starts see "Trouble shooting" section "C"*

D- Finally, walk over and pick up the Dawg Tag. Don't push on the Label, simply place it in your pocket, then walk back to your bike and try to start as you normally would. Your walking motion should activate the system. If everything is correctly installed, your bike **WILL START!** . . . **But only because YOU'RE there!**

** If anything doesn't work as described see "Trouble shooting" section "A"*

E- Checking your system's range: Walk 30'+ feet away from your bike with the Dawg Tag™ in your hand, wait 20 seconds then have someone continually depress your start button. As you walk up to your bike, slightly rock the Dawg Tag side to side. Notice at what range your bike starts. (*typically range is 10' ft. or so*). If after testing you feel you would like to further fine tune your system range up or down, Instructions can be found on the “Installation” page at www.digitalguarddawg.com

OK, Great Job! Now, take a quick read through "Using the System" Then go enjoy yourself knowing anytime you're away from your bike, your loyal friend "The Dawg" is on guard.

Using the System

Day to Day Operation

One of the most desirable benefits of the Digital Guard Dawg™ system is its effortless, hands-free ease of operation. By simply keeping the Dawg Tag™ with you, all security functions of Arming and Disarming your system are completely automatic. Without doing anything, your bike's protected every time you walk away.

How it Works

The area around your bike {approximately 10 feet} is monitored for the presence of your Dawg Tag™, (One of over 6 billion unique codes). The system Arms 15 seconds after your Dawg Tag™ leaves the monitored area around your bike and Disarms again when the Dawg Tag returns. ***** Important Note:** The Dawg Tag is "Motion Activated" and begins trying to communicate with the "Smart Relay" only when it detects movement, (*such as when you are walking towards your bike*). If the Dawg Tag™ remains completely motionless for over two minutes, it will stop trying to communicate with the "Smart Relay" until it detects movement again, even if it is within the monitored area. **Example;** if you set your Dawg Tag™ down on the ground next to your bike and it remained motionless for over two minutes the system will arm even though the Dawg Tag™ is within the monitored area.

Trouble Shooting

A- Since all relays and tags are fully tested prior to shipping, The only variables of installation are: (1) Selection of the correct relay, (2) Good connection points from the Relay to Battery (3) Good battery voltage. Review each variable and re-test each step. If you are still having difficulties call Technical Support at (916) 337-1040 / Mon - Sat 9am-5pm pst.

B- If you test started your engine and checked your battery before you began and your motorcycle doesn't start at this point; you have a bad connection at either the Power wire, Connector or the Battery. Go back check your crimp from wire to connector and that your battery connection to is tight. Repeat Pre-Test

C- If your motorcycle starts at this point, Repeat the test one more time and confirm your results, make sure to wait the full 20 seconds after you set the Dawg Tag™ down to allow it time to re-arm. If your bike starts again upon re-testing; you have replaced the wrong relay

FAQ's

Is my Dawg Tag™ supposed to Rattle?

Don't worry, nothings broke. The noise you hear when you shake your Dawg Tag™ is just the motion sensor.

Do I ever have to replace the battery in my Dawg Tag™?

Your Dawg Tag™ contains a lithium battery designed for operational life of 1 to 3 years depending on use. Battery status can be tested by pressing the hidden button and observing the LED. **If the LED lights up solid your battery is Good if the LED flashes, flickers or fails to light up, the battery is "Weak" and should be replaced.** The battery is a CR 2450 Lithium cell and can be purchased at most drug or electronic stores, Radio Shack™ etc.

To replace your battery, just remove the two screws in the back of your Dawg Tag™ and exchange the battery, making sure to put it in with the same side up, and screw the case back together.



What happens if I lose my Dawg Tag™?

No problem, we can start you right over the phone, just like magic! Put this phone number in your wallet and call our Service Hotline 916-337-1040 if you ever need assistance.

What if I have difficulty starting your bike?

Should you ever experience momentary difficulty in starting your motorcycle, Don't Panic. This is caused by one of two reasons and is easily solved. Momentary difficulty starting your motorcycle may be caused by interference from outside radio signals (random RF) much like interference you occasionally get on your cell phone. This can occur if you are parked near a powerful commercial radio tower or near high power radio equipment such as in police or other emergency vehicles. These random RF transmissions can interfere with Digital Guard Dawg's™ automatic disarm signal and prevent you from immediately starting. The second reason you could experience difficulty is a weak battery in your Dawg Tag™. **Either of these conditions is easily solved by simply boosting the Dawg's disarm signal.**

To boost your disarm signal, simply push the hidden button located behind the label on your Dawg Tag™ as shown. The LED above the button will light up and you will instantly be able start your motorcycle.

Can I get additional Dawg Tags™?

You can always add additional Dawg Tags™ to your system or get a second Smart Relay for an additional motorcycle and cross program them to all work together. Just call **Customer Service at 916-337-1040**

Will my insurance company give me a discount?

Digital Guard Dawg™ is a **"Passive Starter Interrupt System"**, the most advanced on the market. Many insurance companies give discounts up to 25% off comprehensive coverage for a system of this type. Check with your individual insurer for specific discount information.

CUSTOM BIKES

A. - If you are installing on a Custom bike, you should do a quick relay polarity test prior to installing the Digital Guard Dawg™ system. This is important because occasionally Custom bikes have their starter relays wired in reverse of what the relay manufacturer specifies. Damage to the Smart Relay could occur if installed with the polarity reversed. It is an easy process to confirm the polarity of the relay socket on your bike. Simply follow the instructions below:

*** See Diagram (1) - Use a test light to determine which slot of the relay socket receives power when your Start Button is pushed. With the relay socket oriented as shown, turn the Ignition "ON" and depress and hold the "Start" button. Test both slot (1) then slot (2) for power. "Only Slot (1) should have power. If slot (2) indicates power when testing, visit our "Installation" page at www.digitalguarddawg.com or call one of our techs at 916-337-1040 Mon-Sat 8-5 pst. for assistance.

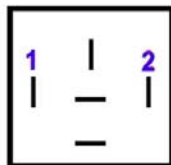
B. - "IGNITION RELAY INSTALL" Some Custom bikes have only an Ignition Relay. If the Digital Guard Dawg™ is used to replace the Ignition Relay, the system will protect the bike just as before but the starter will be able to crank.

C. - Some Custom bikes have NO Relay Socket; On Customs that have the Starter Relay wired with only loose terminals and no Relay Socket whatsoever, pay extra close attention to the way the existing relay is wired as you remove it and be sure to confirm polarity as discussed above. If the polarity is correct, install the Digital Guard Dawg™ Smart Relay in the same manner as the original.

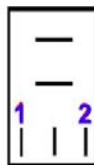
A generic "Hard Wire" wiring diagram for any bike can be found on the "Installation" page of www.digitalguarddawg.com

Relay Socket Polarity	Diagram 1
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Type 1
Relay Socket



Type 2
Relay Socket



Got a Question?

Call one of our techs at

916-337-1040

Mon-Sat 8-5 pst.

for assistance.

Test the socket not the relay



DIGITAL Guard Dawg INC.

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ph 916.337.1040 fax 800.383.1950 www.digitalguarddawg.com

DGD-AD1 adaptors for **2004-2006 FLHR/C/S** Installations can be ordered at www.digitalguarddawg.com or by calling 916-337-1040 Mon-Sat 9-5 pst.

Warranty

Digital Guard Dawg Inc. warrants this system against manufacturing defects and workmanship for one full year from the date of purchase. This warranty is limited to the original purchaser of the security system. Proof of purchase is required. The installed motorcycle must be registered with the State Department of Motor Vehicles.

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"This device complies with Part 15 of the FCC Rules. Operation is subject to the following conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference that may be received, including interference that may cause undesired operation" Caution: changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.