

1130cc.com Keyless Modification

Tools you will need:

Dremel tool or other cutting device to cut the airbox bottom.

Wire Cutters

Crimpers

Heat Gun

5mm Hex Wrench

10mm Wrench

Drill

Contents:

Digital Guard Dawg Relay with Smart Chip and Dawg Tag (Optional)

Keyless Wiring Harness

3 Amp Mini Fuse

12 Gauge Butt Connector x 1

14 Gauge Butt Connector x 2

18 Gauge Butt Connector x 2

¼ inch Ring Connector x 1

Mini Relay x 2

Bridge Connector x 1

¼" Heat-Shrink x 1

Zip Tie x 5

Installation:

Please Read ALL DIRECTIONS CAREFULLY BEFORE PROCEEDING.

1. Remove Right Side Cover and Remove Maxi-fuse



2. Remove Airbox "Tin" and entire Airbox assembly. (Refer to your service manual for full instructions for this step.)
3. Cover Throttle Bodies with Duct Tape to prevent Foreign Object Debris from entering engine



4. Cut back left corner out of the airbox to allow for routing the wires. It need only be big enough to pull the relay harness through. A small hole will work to route the wires, but when the bike needs maintenance; there will be no easy way to take the airbox off for maintenance in the future. (If using the Digital Guard Dawg, make sure the hole you cut will have room for the **RELAY while it is plugged into the harness** can be pulled through to avoid cutting the Positive power feed for the Digital Guard Dawg during future service.)



5. Feed the Relay Wires through the hole in the airbox. Lay the Keyless Wiring block in the airbox where you want to mount it. Verify the gray and blue wire is long enough to route to the right side hand control connector. Verify the Ground wire is long enough to reach the negative battery terminal or the ground wire attachment to the front head. Verify the Orange, Blue, and Red wires are long enough to reach the area of the fuse box. Verify the GREEN WIRES to the accessory switch will reach the area of the ignition bolt, or another area where you wish to locate your accessory switch.
6. Drill 2 holes in the airbox bottom along the side where you wish to mount your Keyless Modification Relay assembly. A single zip tie around the module and through these two holes will hold your module in place. Making the holes SLIGHTLY CLOSER together than the width of the relay/fuse housing will provide a better grip of the assembly.



7. Attach the negative ground to the ground wire or directly to the negative battery terminal.
8. Remove the Duct Tape from the Throttle body, Remount the Airbox bottom AND the AIR FILTER.
9. Remove Left Side Cover and identify the BLACK DEUTSCH CONNECTOR for the RIGHT SIDE hand controls. (On 2002-2003 VRSCA's the connector will be inside the stock clamshell near the instrument cluster see extra step below.)*

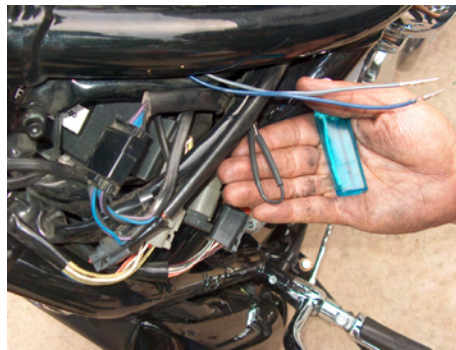
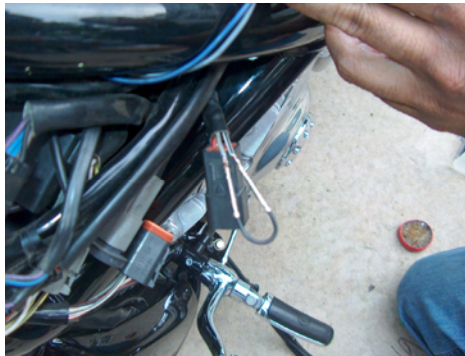


10. Unplug the connector, and remove it from the retention slot. You need to freely work the wiring harness end of this connector.
11. Remove the Retention plug from the center of the wire harness (PIN END) of the connector. You can use a hook tool, or make one out of a paper clip or other wire metal like the one pictured.



12. Use a small flat blade screw driver to lift the retention tabs on the white with black stripe wire while gently pulling the wire from the back of the housing. It should pull out of the rubber weather seal with MINOR friction.
13. Remove the gray wire pin the same way.

14. Using supplied jumper: Put one end over the gray terminal pin, and one end over the white/black terminal pin. Use heat-shrink to cover both pin assemblies and to hold the jumper in place. Heat with hair dryer or heat gun for firm fit



15. The gray wire on the Keyless Modification Harness will replace the gray wire for the hand control connector pin on the wire harness side of the connection. Just push the wire into the empty pin terminal until the tab clicks down.

16. The Blue wire on the Keyless Modification Harness will replace the White/black wire for the hand control connector pin on the wire harness side of the connection. Just push the wire into the empty pin terminal until the tab clicks down.



17. Replace the locking wedge into the middle of the connector and push it down flat until it clicks. You can now reassemble that connector leave it loose for the testing procedure.

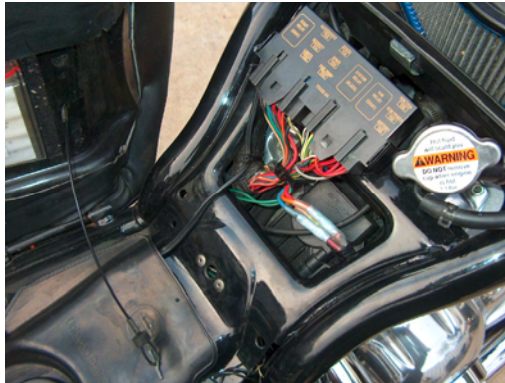
18. Remove the 10mm bolt holding on the ignition module. Remove the two 10mm bolts holding the seat latch mechanism.



19. Cut the 3 wires from the ignition module. If you think you may want to go back to stock, leave enough wire on the terminals to re-splice them if you should choose to do so later.



20. Route the three wires under the cross member and behind the wires for the fuse box. This is how we want it to look when finished.

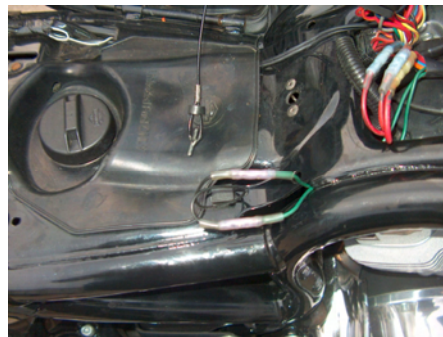


21. Strip the Thick Red wire from the Ignition about 3/8 to 1/2 inch. Using the Yellow Butt Connector, attach that red wire to the Thick Red wire from the Keyless Wiring Harness. Crimp both wires firmly.

22. Strip the Red with Grey stripe wire as above. Using a BLUE Butt connector, attach it to the ORANGE wire from the Keyless wiring Harness. Crimp both wires firmly. Heat the butt connector to activate the Heat-Shrink.

23 Strip the Red with Black Stripe wire as in step 19. Using the other BLUE Butt connector attach it to the BLUE wire from the Keyless Wiring Harness. Heat the butt connector to activate the Heat-Shrink.

24. Place the accessory switch in the hole for the bolt for the Original location for the Ignition Switch. Use the rubber boot and screw to secure the switch in place.



25. Route the two GREEN wires from the Keyless wiring harness to the right side of the frame and under the frame toward the switch leads. See Above.

26. Using the 2 Red butt connectors, attach one green wire to a lead for the switch. Crimp each wire firmly. Repeat for the second side. Heat the butt connectors to activate the Heat-Shrink covering.

27. If using the Digital Guard Dawg: Thread the black Power Lead through the Hole on the face of the Wiring Harness. That black wire is to be connected to the extra 3 inch RED wire from the fuse terminal. The digital guard Dawg is to be used in the END Plug for the Relay. This will be done for you if you ordered your Digital Guard Dawg with the Keyless harness.

28. Double-check all your connections. Every wire should be covered with either a butt connector, or Heat shrink tubing.

*2002-2003 V-Rods with Connectors under the instrument cluster: You have a couple choices.

1. You will need to fish the two wires from the Keyless Mod through the wire sleeve to the cluster. You will need to disassemble the cluster. Follow the V-Rod Manual for this procedure, as there are SMALL PLASTIC TABS that hold the Chrome bezel in that are VERY FRAGILE. It is best to use a wire hanger to push through the protective sleeve, and tape the ends of the wires to the coat hanger using electrical tape. Stagger the pin connectors to minimize bulk. Gently pull the whole apparatus through the sleeve. If you meet resistance, stop. DO NOT FORCE THIS as you can damage the wires inside that sleeve.
2. You can cut the appropriate wires (Grey and White with black stripe) under the left side cover. This would require connecting the gray wire and white w/black stripe wire on the BIKE side of the cut together. You can solder them together and cover them with heat-shrink or butt-connect them. You would then need to cut the Grey Wire from the Keyless wiring harness and then connect it to the gray wire from the hand control. You can use a butt connector, or solder and Heat-Shrink insulation. You will then need to do the same for the white/black wire from the hand control and the BLUE wire from the Wiring harness.

Test your Setup:

1. Replace the Maxi fuse.
2. Put the Run/Stop switch to RUN position. (If using the Digital Guard Dawg, Make sure it is on your person when you flip this switch.)
3. The Cluster should light, Headlight should come on, and Fuel pump should prime.
4. Wait the required 3-5 seconds for the engine light to go out.
5. Start the bike.
6. Put the Run/Stop Switch to the Stop position.
7. Engine should turn off and all lights should turn off.
8. Push the accessory button. The gauges should cycle and sweep. The LED illumination should be visible.
9. Push the accessory button again. The entire bike should be "off."

Additional Testing if you have the Digital Guard Dawg:

STEP 1. Testing the Ignition Interrupt

10. Walk 30' away from your bike and set the "Dawg Tag" down on a motionless surface. Wait 30 Seconds for the system to ARM.
11. Approach the bike without the Dawg Tag and attempt to start it (*the bike should not start*).

STEP 2. Testing the system Range

12. Leaving your Stop / Run switch "ON", return to the Dawg Tag, Pick it up and give it a brief shake. Now slowly walk towards your bike (one step per second) and note when the bike powers.

Reattach the Black Hand Control Connector on the perch. Secure all wires with supplied zip ties. You can mount the Relay body to the side of the airbox lower by drilling 2 holes and securing the block with a zip tie. Replace the Side Covers, Air cover if desired, and Airbox "Tin."

Trouble Shooting:

Since all of the wiring harnesses are bench tested, double-check all your connections.

If there is NO POWER with the run/stop switch, then:

1. Make sure your Dawg Tag is in proximity. Swing it from side to side over the relay.
2. Check the connection from the wire from the Digital Guard Dawg and the positive power wire.
3. Check your Maxi-fuse is in place.
4. Check the 3 amp switch fuses
5. Check the connections to the right hand control, black plug.
6. Check the jumper for the gray and white with black wire.
7. Check your ground wire.
8. Check the RED lead to the ignition. (The thick RED wire from the Keyless Harness)
9. Check the RED w/ Black Stripe lead to the ignition. (The thick BLUE wire from the Keyless Harness)

If there is NO POWER with the Accessory Switch:

1. Check your Maxi-fuse.
2. Check your 3-amp switch fuse.
3. Check the connections to the switch.
4. Check the RED lead to the ignition. (The thick RED wire from the Keyless harness)
5. Check the Red w/ Grey Stripe lead to the ignition. (The thick Orange Wire from the Keyless Harness)

If you continue to have issues, please contact keylessmod@V-Rod.net or on www.1130cc.com. Please start a new thread.

Special Thanks to:

Max Millender for sharing this original concept and creating 1130cc.com as a place where these ideas are discussed and shared.

Joe Albe of Heavycycles.com for lending his expertise and indulging the “look at me” crowd.

Bruce McKinley of Digital Guard Dawg for expanding his product into the Motorcycle segment, as well as having an open mind for new applications for his product.



If you have the Digital Guard Dawg Option, Please read the following pages:

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 turn off your Stop / Run switch and just 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 30 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 in "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 are standing next to your bike, but are standing virtually "Motionless" the Dawg Tag may go to sleep. When you flip the Stop / Run switch the system may not immediately activate. If this happens, simply give your pocket containing the Dawg Tag a "Pat" to wake it up.

FAQ's

Is my Dawg Tag™ supposed to Rattle?

Don't worry, nothing is 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 my 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.

If I drop my Dawg Tag™ will my bike shut off?

NO! for safety reasons, once the Dawg Tag has authorized the ignition the bike will not shut off or rearm until 30 seconds after YOU shut off the bike.

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.



DIGITAL
Guard Dawg
PERSONAL RECOGNITION SYSTEM™

Adjusting Your System Range

The Digital Guard Dawg™ is bench tuned to achieve approximately 10' feet of operating range. Actual system operating range can vary depending on several factors including the amount of metal nearby to the Smart Relay install location.

For this reason, we have provided a way that you can fine tuning the operating range specifically to your bike. Should you desire to **Decrease** or **Increase** the operating range of your Digital Guard Dawg™ system you can do so with the following instructions.

