



BA-757X-XX – BARON TACHOMETER HARLEY-DAVIDSON INSTALL INSTRUCTIONS

CAUTION! We Strongly recommend that a qualified Technician install this tachometer should you not fully understand the instructions prior to starting the install. For questions contact our tech dept. via email or phone # listed below.

INCLUDED IN THE KIT:

(1) Chrome Billet Baron Tachometer	(1) 3-wire Tachometer Adapter
(1) Electrical Hardware Kit	(1) LED Control Box (for 7-color tach installs)

TOOLS REQUIRED:

Harley Service Manual	Wire Crimper/Pliers
24" of 20ga. wire	5/32" Allen Wrench (Tighten Tach)
Pliers (Std. & Needle-nose)	

1980-2009 HARLEY-DAVIDSON (ALL MODELS):

1. Mount new Baron Tach on handlebar in your preferred position. Ideal location is between handlebar risers. If mounted off-center, you can rotate tach face back to vertical (or any position you desire) by first loosening tach unit's set screw (found either in handlebar area of housing or underside of housing, depending on tach style), then unscrewing tach housing's bezel, rotating the tach internals, re-installing the bezel and retightening the set screw.
2. Secure handlebar clamp by first tightening the rear, flat side of clamp all the way down, and then tighten the tapered front side of clamp until tach does not rotate. There should be a small gap on the pointed side and no gap on the flat side when the clamp is correctly tightened.
3. Route tach's wire harness lead under dash for simplest and cleanest installation.
4. Make your wire connections as follows:
 - a. Locate the pink wire under the speedo (sometimes has a plastic bullet end on it). Cut the plastic off and splice the pink wire with the green wire from the tachometer.
 - b. Find the orange wire and attach the tach power wires to it (usually blue & red from tach (incandescent) or red & yellow for single color LED tachs. On 7-color LED models it is red from tach and red from LED controller box).
 - c. Locate a suitable ground (usually a bare frame bolt) and attach the black wires from the tachometer and the LED controller box (if equipped).

On some models the supplied wiring may need to be trimmed to fit the bike's connectors. Use the ring terminal for all chassis ground connections. **If you mount your tach high up on the handlebar, or have tall or pullback risers or wide handlebars, you may need to splice extra wire to each colored wire lead of your tachometer prior to completing the routing and connection, then trim to appropriate length.**

Our install guides provide a basic outline on the proper installation of our products. Further tuning and/or fitment may be required. Baron bears no responsibility on installation costs associated with this product.

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2004 – 2009 HARLEY-DAVIDSON (ALL MODELS):

The 04-09 Harley Davidson will need to utilize the Baron Tach Adapter (BA-7315-50 included with your tach). You will also need 3 (three) 3M Scotch-loc connectors (included), as you will need to splice into the coil wiring harness. There are 2 wires we will be using that look VERY SIMILAR. Please pay attention to the ones you connect to, as they will only work if the instructions below are followed.

1. Remove the seat & fuel tank per the factory service manual.
2. Remove the plastic wiring harness cover that runs the length of the backbone under the tank.
3. On the left side is the coil harness. Find the following wires to connect to: Yellow w/Blue Tracer, Blue w/Orange Tracer, Yellow w/Green Tracer. These will be used in later steps.
4. Using your first Scotch-Loc, connect the **yellow lead from the tach adapter** to the yellow w/blue tracer coil wire.
5. Using your second Scotch-Loc, connect the **blue lead from the tach adapter** to the blue w/orange tracer coil wire.
6. Connect the **green lead from the tach adapter** to the green wire from the tachometer with the included red butt connector.
7. Find switched power from the bike (you can use either the orange wire from the bike's harness or the yellow w/green tracer wire). Using the third Scotch-Loc, take either the blue & red wires (incandescent tach model), or the red & yellow wires (single-color LED tach model) and splice them to the yellow w/green tracer wire on your harness. For 7-color LED tachs, use the red wire from the tach and the red wire from the LED controller box and splice them to the yellow w/green tracer wire on your harness.
8. Locate a suitable ground (usually a bare frame bolt) and attach the black wires from the tachometer and the LED controller box (if equipped).

If you have any trouble with the installation, please feel free to call or email us for more help. Once again, thank you for your support of Baron Custom Accessories!

On some models the supplied wiring may need to be trimmed to fit the bike's connectors. Use the ring terminal for all chassis ground connections. If you mount your tach high up on the handlebar, or have tall or pullback risers or wide handlebars, you may need to splice extra wire to each colored wire lead of your tachometer prior to completing the routing and connection, then trim to appropriate length. You can use plain black wire to splice in the middle so the end color remains the same. Use 20ga. or larger wire.

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Revision 5.0 (9/17/2009)



BA-7315-50 – Single-Fire Tachometer Adapter Universal Fitment

CAUTION! We Strongly recommend that a qualified technician install this kit if you do not completely understand the instructions prior to the install.

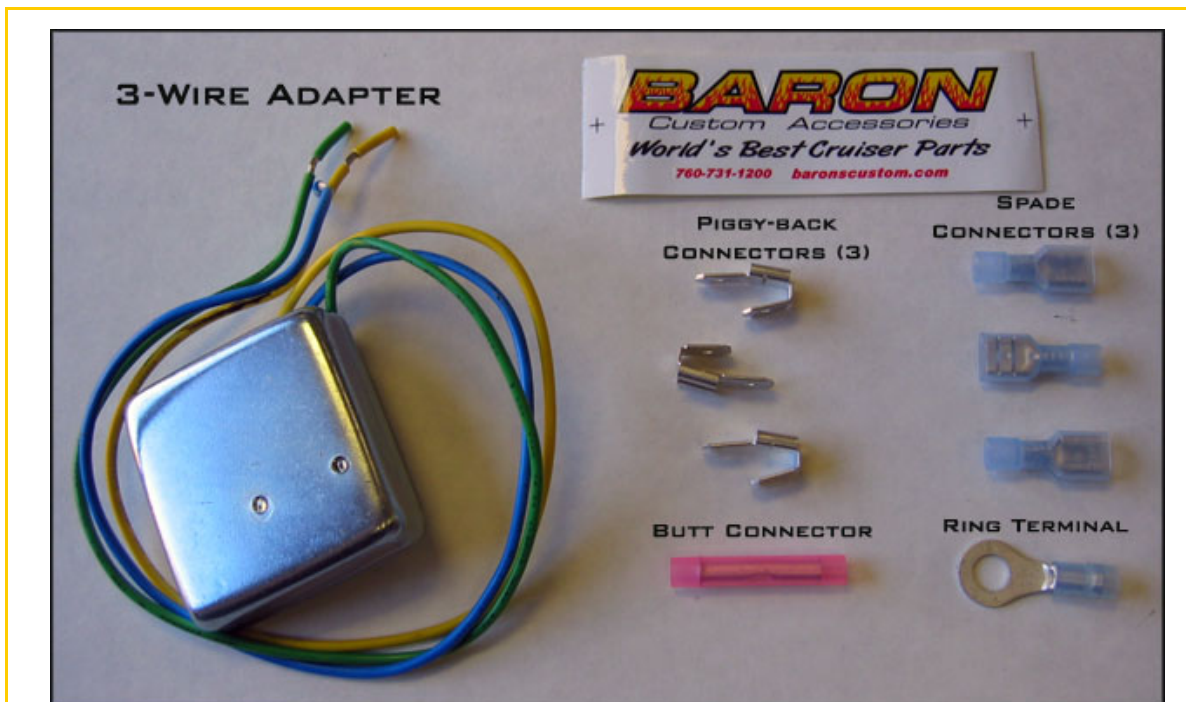
INCLUDED IN THE KIT:

(1) Baron 3-wire Tach Adapter	(3) Piggy-back Connectors
(3) Spade Connectors	(1) Butt Connector
(1) Ring Terminal	

TOOLS REQUIRED:

Crimp tool (or std. pliers)	Needle-nose Pliers
Wire Strippers	Factory Service Manual

INSTRUCTIONS:



Note: This adaptor is intended to allow single-fire ignitions, such as those found on Honda VTX1800, Kawasaki Vulcan 900 & 2000 FI models, some Harley Davidson models and Suzuki Boulevard models to be used with BARON tachometers. This part may also work with other manufactures' tachometers, although we cannot guarantee its functionality unless it is used with a Baron Tach.

Please see the connection instructions on the following page.



BA-7315-50 – Single-Fire Tachometer Adapter Universal Fitment

CONTINUED:

Make connections as follows:

- Yellow wire of adaptor to NEGATIVE on front coil
(use the spade connector and the piggyback on your stock coil)
- Blue wire of adaptor to NEGATIVE on rear coil
(use the spade connector and the piggyback on your stock coil)
- Green wire of adaptor to green wire of tach (input) (Use the butt connector)
- Red and blue wires of tach to POSITIVE terminal of coil (or other switched 12-volt source)
- Black wire of tach to CHASSIS (ground)

To determine POSITIVE and NEGATIVE of your coils:

Most motorcycles will have two wires going to each of the two coils. Each coil will share one common color wire and will have one different color wire. The common color is **positive**, and the different colors are **negative**. For example: Yamaha has a red/black wire on both coils - that is positive. The other wire is orange or gray - that is the negative side. Honda is black/white for positive, and blue/yellow and yellow/blue for negative. Suzuki has orange/white on both coils as positive, and white or black/yellow as negative. Kawasaki has red/green for common positive, and black or black/green for the negative side. Harley Davidson has yellow/green for common positive, and the negatives are blue/orange for the front cylinder, and yellow/blue for the rear cylinder.

***KNOWN FITMENT:** The tach adapter has been tested and is required for Honda VTX1800 (not 1300), Harley Davidson '04-09, Kawasaki VN900 & VN2000 (Not needed on VN1500 & 1600), Suzuki C50 & C90, Yamaha Vstar 1300, 08-09 Roadstar, Warrior (Not needed on 99-07 Roadstar, RSTD, Venture or Vstar 650/1100). This adapter may also work on fuel-injected 2 or 4-cylinder bikes not listed here.

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BARON TACHOMETER UNIVERSAL INSTRUCTIONS

CAUTION! We Strongly recommend that a qualified technician install this kit if you do not completely understand the instructions prior to the install.

INCLUDED IN THE KIT:

(1) Baron Bullet Tachometer (black/white face)	(1) Baron Single Fire Tachometer Adapter
(3) Blue 3M Scotchlock connectors	(3) Female Quick Connectors
(3) Piggy-back Spade Connectors	(1) Ring Terminal
(1) Double-Crimp Butt Connector	(1) LED Control Box (for 7-color tach installs)

TOOLS REQUIRED:

2.5, 4 & 5mm Allen Wrenches	10 & 12mm Sockets
10mm Open-end Wrench	Electrical Tape / Shrink Tube
Pliers (Std. & Needle-nose)	Factory Service Manual

INSTRUCTIONS:

These instructions cover installing this tach on most bikes. For Harley Davidson specific models, please see the attached pages and find the page that corresponds to the year of your bike. Some vehicles may require the included tach adapter. Please call us if you are unsure. There are also instructions included for the adapter.

Wire Baron's Tach to one of your motorcycle's ignition coils via the following method:

- **Green wire** to **NEGATIVE** terminal of coil (or direct to green on tach if your bike requires the single fire adapter. See FAQ to determine your bike's negative side)
- **Black wires** from Tach and LED Control box both to **CHASSIS** (Ground)
- **Red wires** from Tach and LED Control box both to **POSITIVE** terminal of coil (or other switched 12 volt source)
- **White Connector** from Tach to **White Connector** on LED Control Box
- **Black Switch** plugs into **LED Control Box**

General mounting instructions

1. Mount new Baron Tach on handlebar in your preferred position. Ideal location is between handlebar risers. If mounted off-center, you can rotate tach face back to vertical (or any position you desire) by first loosening tach unit's set screw (found either in handlebar area of housing or underside of housing, depending on tach style), then unscrewing tach housing's bezel, rotating the tach internals, re-installing the bezel and retightening the set screw. Secure handlebar clamp by first tightening the rear, flat side of clamp all the way down, and then tighten the tapered front side of clamp until tach does not rotate. There should be a small gap on the pointed side and no gap on the flat side when the clamp is correctly tightened.
2. Route tach's wire harness lead to coil as necessary for simplest and cleanest installation. Feed tach harness alongside bike's wiring harness (passing behind any plastic frame covers), then downward toward coil.
3. Make your wire connections as recommended above. Use the spade and piggyback connectors for coil connections.

On some models the supplied connector may need to be trimmed to fit the bike's connectors. Use the ring terminal for all chassis ground connections. If you mount your tach high up on the handlebar, or have tall or pullback risers or wide handlebars, you may need to splice extra wire to each colored wire lead of your tachometer prior to completing the routing and connection, then trim to appropriate length.



BARON TACHOMETER UNIVERSAL INSTRUCTIONS

CONTINUED:

- **How do I know if I need the Tach Adapter (BA-7315-50)?**
We have tested this adapter with the following bikes: Harley-Davidson Road King, Softail models, Kawasaki Vulcan 900, 2000 and the Suzuki C/M50. If your bike has a fuel-injected, single-fire ignition, or if you've installed our tach but it reads half RPM, this adapter should work for you. Please check with your dealer if you are unsure. Harley Davidson models using the stock tach output from the bike (pink wire) will not require the adapter. Vulcan 1600 do NOT need the adapter.
- **Can the tach be mounted under the handlebars?**
YES. If you have enough room to mount under the handlebars, the instrument can be rotated in the housing to correctly orient it for under-bar installation. There is a set screw inside the clamp that needs to be loosened to allow the tach insides to be rotated. **Special note for under-bar installations:** Be aware - the chances of water intrusion are greatly increased in this location!
- **How can I tell positive from negative on my coil?**
Most motorcycles will have two wires going to each of the coils, and each coil will share one common-color wire and have one unique color wire. The common-color is the positive and the unique color is the negative. For example, a Yamaha set-up has a red/black on both coils - that is positive. The other coil wire would be orange or gray - that is the negative side. Honda's set-up is blue/yellow and yellow/blue for the negative, and black/white for the positive. Suzuki has orange/white on both coils as positive and has white or black/yellow as the negative side.
- **My bike has two (or four) coils - Which one/ones do I use?**
Most multi-cylinder bikes have one coil per cylinder. You only need to connect to **one** of the coils - choose the one most convenient for wire routing. (Single-fire motorcycles require a tach adaptor [included] that will combine the signals from two coils)
- **My tach is bouncing at idle. Is it bad?**
Typically, bouncing tachs are caused by 3 reasons. On some bikes, a low idle can cause the tach to bounce up to 1000 rpm. Most manufacturers suggest 700-900 rpm as an acceptable range for idle. If you choose to keep it lower, you may experience some bouncing at idle. This does not negatively affect tach operation. The next major cause for tach bounce is poor connections/ground. We recommend soldering all connections, and finding an appropriate ground somewhere on the frame or the negative side of the battery.
- **My tach face has fogged up, what do I do?**
Tach fogging can occur when the outside air temp is warmer than the inside of the tach, and humidity is high. Baron tachs feature vent holes in the tach body that are next to the wire exit point in the clamp. It is important that the clamp be tightened so that these holes are open for air exchange. This means the edge of the clamp that faces the rider should be tightened down until it touches and the forward edge of the clamp has a gap for the vents to work properly.
- **How do I replace the light bulb in my tach?**
Remove tach from the handlebars. In the handlebar clamp area of the tach housing there is a set screw - loosen it, then remove the tach housing bezel by unscrewing it from the housing, and slide the tach instrument out of the housing. On the back of the tach unit there is a rubber plug - remove the plug. The bulb is in a holder just under the plug. Rotate holder 1/4 turn to remove, and pull the bulb out. The replacement is a Sylvania 74b (or equivalent) available at most auto parts stores. The 7-color tachometers have an LED that is not replaceable, but LED's typically last a very long time and you should never have to replace it.

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