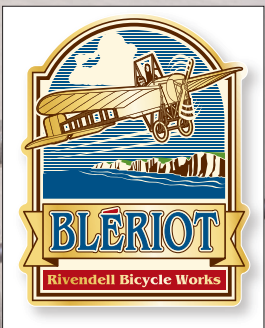


# BLERIOT



# The Bleriot

WHAT IT IS, HOW IT HAPPENED, AND HOW TO PRONOUNCE IT

## I. Why “Bleriot”? Who was he?

Louis Bleriot was a French aviator who in 1909 became the first person to fly over the English Channel. You may pronounce it *blare-ee-ought* or *blare-ee-it* or *blare-ee-ob*. We’ll know what you’re talking about.

## II. What’s the Bleriot frame/bike?

It’s a multi-purpose bike built for 650B wheels. The rest of this brochure goes into more detail.

### What’s a 650B wheel?

It’s bigger in diameter than a mountain bike 26-inch wheel, and smaller than a typical road 700c wheel. Rims are sized by something called “bead seat diameter” (bsd)—the diameter at the point where the tire bead nestles to the rim. Every tire made has its bsd molded into it, because bsd is the universal language of rim & tire compatibility. Here’s a chart.

rim size	bsd
700c	622mm
650B	584mm
26-inch (mtn)	559mm

### Why 650B?

A 650B wheel is smaller than a 700c wheel, so it allows more tire and fender clearance, which is especially helpful on small-to-medium sizes.

### 650B history

Bikes with 650B wheels go back 60 years, and still have a strong following in France, with a growing fan base here in the United States. It’s a smart size that one could argue should have been the mountain bike size, but in the frenzy to get a bike out there, it was easier to use the current mountain bike size (559mm bsd 26-inch), and once that caught on there was no going back.

## Since 26-inch (559mm bsd) is here, why bring back 650B/584?

That's a good question. In the middle to upper end of the size range, the proportions are better than either 559 or 622 wheels.

In 2004, we/Rivendell introduced the Saluki, the first modern, semi-widely available 650B bike made in 25 years. It was a hit, and we still make it. But toward the goal of re-popularizing the 650B wheel size so more people can realize its benefits, we wanted to bring out a less expensive, functionally equal bike that would give more people access to a really nice 650B bike.

### Five kinds of riding the Bleriot excels at...

**1. Fast solo rides or fast rides with friends, where you're going out for some sweat and effort, but the plan is to more or less stay together.** Perfect for a Bleriot. There are plenty of tires for this kind of riding. You won't be slowed down the least bit.

**2. Touring.** The Bleriot frame is terrific for touring. It's stiff enough, has touring clearances for fenders and tires, puts you in a comfortable all-day touring position, and has enough braze-ons to satisfy to mount plenty of racks. The only caveat is the 650B tires. They're readily available to any bike shop, but most don't stock them. So if you tour on the Bleriot, bring a folding spare. You should do that anyway, with any tire size. For inner tubes, start off with 650B tubes, and of course carry spares as you would for any tire. But in a pinch, the Bleriot can use mountain bike or road bike inner tubes, too.

For the Bleriot, we recommend body-plus-baggage weights of up to 235 pounds for road touring, and 225 pounds for off-road touring.

**3. Fire trails.** There's no better bike for fire trails and dirt roads that aren't chock full of boulders. It's not as forgiving of high speeds and inattention as a modern mountain bike is, but if you're after a fun ride in the forest or on fire trails, the Bleriot with a 650B x 38 tire pumped to 30psi is the better bike. It's perfect for the task, all the tool you'll want or need.

**4. Commuting.** Rig your Bleriot with racks, bags or baskets or both, and fenders. For the most comfortable commute possible, choose an Albatross bar (or some other upright, back-sweeping model) and a wide, cushy saddle. You can't beat that.

**5. Brevets.** Brevets are long-distance, non-competitive, timed rides between 200km and 1200km, organized and sanctioned by any of several chapters of the Randonneurs Internationale. The Bleriot's predecessor, the Saluki, is already a popular Brevet bike. The Bleriot will be, also.



A Bleriot set up for all-around riding. Notice the nice proportions and the highish handlebar.

## Why you'll be comfortable on your Bleriot

Because you'll be able to get the handlebar as high or even higher than the saddle. That's three-quarters of the comfort battle, so it's no small deal. On most bikes, the handlebar is well below the saddle, so you carry weight on your hands, and support it with tensed arms and a strained lower back.

The higher bars result from a high head tube (relative to its seat tube length), a longer than usual steer tube, a 1.5-degree upsloping top tube, and a long-quilled Nitto Technomic Deluxe stem. Cumulatively, they let you raise the handlebar more than 3 1/2-inches higher than you can do on a same-sized normal bike, shifting weight off of your hands, and taking strain off of your neck and lower back. There are no drawbacks. The bike looks good and feels great.

The Bleriot is comfortable over bumps, because it fits tires much fatter than you can ride on a typical road bike. A typical road bike won't fit tires larger than 28mm; the Bleriot fits tires up to 42mm, and you can ride the tires at 30 to 35 psi. Light, high-volume, soft tires over bumps? It's heavenly.

Another aspect of comfort is how much you can relax on the bike. If the bike overreacts to every bump or sudden gust of wind, or feels high strung when you're going fast, you won't be able to relax on it. How a bike responds in this way depends mainly on its wheelbase, the weight of the wheels, the tire pressure, your body position, and the bike's steering geometry. We understand all that, and have designed the Bleriot to be responsive and fun to ride, but not a handful when conditions are wild or you run over a bump you didn't see coming. So it's comfortable in the sense that you can relax on it, too.

# Geometry

The Bleriot is designed to ride on a variety of surfaces, with or without extra weight. Like every Rivendell-designed bike, the design was thoroughly tested on the roads and trails of Mount Diablo, Shell Ridge, and Briones Regional Park, where the year-round riding is probably as diverse and challenging as anywhere in the world.

## Interpreting the Bleriot geometry chart

**Drop:** Drop is the distance the center of the bottom bracket falls below the centerline of the dropouts. Along with the wheel, it determines bottom-bracket height (since bottom bracket height is wheel radius minus drop). I like lots of drop and lowish bottom brackets, because low bottom brackets seem to make a bike feel better, especially around corners.

**Shallow seat tube angles:** For decades and millions of bikes, frame designers have cheated short riders with steep seat tube angles. The reason are complex, but the result is that most smallish bikes have too-steep seat tubes, and the rider can't sit properly behind the pedals. Long story short, the small Bleriotics have shallowish (72 to 72.5-degree) seat tube angles—which is proper. The other frame sizes do, too.

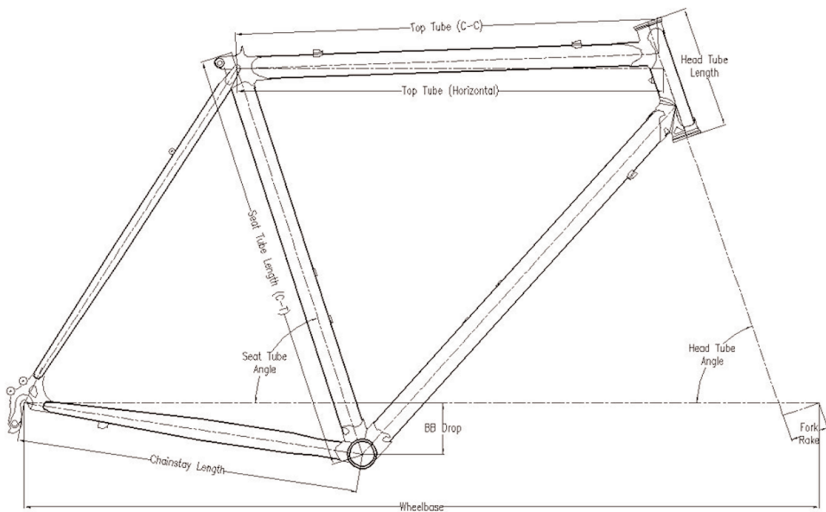
**Long chainstays:** These improve descending and comfort by putting the rear axle less directly under your bottom. They also give the chain a smoother path from chainring to cog, which improves shifting and decreases drive train wear.

**High head tubes:** These let you raise the handlebar higher.

**Moderate head tube angles:** The head tubes on the Bleriot are 71-degrees, which is shallow by 700c bike standards, but in fact works great with 650B wheels. The Bleriot is relaxing to ride, corners great, and is easy to control on trails, even when loaded up with camping gear.

**A normal amount of “trail” :** Trail is the distance between the front wheel's point of contact directly below the wheel center, and the imaginary point of contact if the head tube angle (the steering axis) were to continue all the way to the ground in a straight line. It is determined by the head tube angle, fork offset, and wheel radius, and what trail does, is add a stabilizing element to the bike's steering.

Over the years, most manufacturers have settled on 57 to 62mm of trail, which gives a good combination of wiggleness (for control, for being able to direct the bike) and stability (for safety, so that your swiftly-moving bike won't be jostled too much if you hit a bump, or get blasted by the wind).



## Bleriot Geometry

Size	st	ht	rake	drop	tt*	cs	standover
49	71	71	50	67	525	445	75.1
51	71	71	50	67	535	445	76.0
53	72	71	50	67	545	445	77.5
55	72	71	50	67	555	445	79.5
57	72	71	50	67	565	445	81.1
59	72	71	50	67	575	445	83.1
61	72	71	50	67	590	445	85.1

\* horizontal

### Other

Rear hub spacing is 135mm, now standard for most mountain and touring bikes. It helps make a stronger wheel. Headset requirement is 1-inch threaded, 30.2 x 26.4mm (normal). Bottom bracket threads are British. Rear hub spacing is 135mm. **Lugs, bottom bracket shell, fork crown, and seat stay caps** are Rivendell's own investment castings.  **tubing** is Rivendell's selection of the most appropriate CrMo steel made in Taiwan by a reputable, trustworthy maker. **Brake reach** is 65mm. Centerpulls (Paul or Dia-Compe) are available now, and work great. Appropriate sidepulls will be available in late '06. **Maximum tire size** is about 650B x 44mm without fenders, 42mm with. **How many water bottles?** Two. **Can you mount racks?** Easily. But if you want to mount low-riders, you'll have to clamp them onto the blades. That's fine! **Where can I get touch-up paint?** Good question. We don't have any, but there must be a Testors model paint that's close enough.

# Turning your Bleriot frame into a Bleriot bike

There are lots of ways to do it, and any shop progressive enough to stock the Bleriot will be able to guide you through it. Here are some ideas.

## A. Handlebars

Drop bars are the most versatile, and offer the most options in front bags. **The best drop bar we've found is the Nitto "Noodle" bar**, and the thing we like most about it is the flattish area behind the brake lever hood (assuming you have put a brake lever on it). This area, which we call the "ramp" because it has no official name, is much flatter than the ramp on most drop bars, so your hand can rest there comfortably, without the tendency to slide down and forward onto the brake lever.

**The top part of the Noodle bar** bends back toward you just slightly, too. This doesn't have the dramatic effect that the shallow ramp does, but it doesn't hurt anything, and most people like the angle it offers their hands.

There's nothing super-magical or genius about the Noodle bar's bend, but these two refinements add up to about as nice a drop bar as you'll find anywhere. The Noodle is made in Tokyo, by Nitto, whom we believe is the best handlebar and stem maker in the world. It comes in 41-42-44-46-48cm sizes. The 46 and 48 cost a lot more because they're heat-treated and made of a more expensive aluminum—which Nitto (ever conservative in safety matters) felt was necessary. In general, we recommend the wide bars.

**Moustache Handlebars** are also popular. Compared to drop bars, they offer a more upright braking position, and are generally more accommodating of an upright riding position. They're also unbeatable on climbs, and at least as good as drops are on descents. If you get a Moustache Handlebar, make sure you can get it at least 2cm higher than the saddle.

It's harder to find handlebar bags and racks that work with Moustache Handlebars, but a reasonably creative rider can rig up something good enough, and Moustache Handlebars will continue to win fans. The real Moustache Handlebar is made by Nitto. Nashbar sells a bar with the same name, but it's a different bend and not made by Nitto.

**For an Upright handlebar, you won't beat the Nitto Albatross bar.** Compared to a flat bar, it offers a much more natural hand position (with your wrists inward, the way they hang naturally). Also, because it rises more than 2-inches, it's virtually impossible to not be upright and comfortable on it. But note: Since the Albatross bar sweeps back toward you, it's important to mount it onto a long-extension stem—such as an 11cm or 12cm. Also because it rises

up 65mm, it's not as important to buy a large-ish size, or to go by our sizing chart. If you know you'll always ride this bar style, go one size down from what the chart recommends. If you're not sure, or don't want to rule out another bar in the future, just go by the size chart. An Albatross bar will work fine with your "drop-bar sized" Bleriot, too.

## Stem

For heaven's sake, and the sake of your back and ultimate happiness, please use a stem with a long quill (vertical portion), so you can raise the handlebars more easily. The ideal stem for a Bleriot is the Nitto Technomic Deluxe. It has a 190mm quill, comes in 7cm to 12cm extensions, is beautiful & strong, and lets you raise or lower the handlebar with ease. But any handlebar with a 22.2mm quill diameter will work.



Nitto Technomic Deluxe

## Seat post

The Bleriot needs a 27.2mm post, the most common size. If you size your Bleriot correctly, you won't need a super long post. If you're looking for a good place to economize, after springing for the costly Nitto stem and handlebars, the seat post is a good place. There are innumerable fine posts out there. Get one that you've heard of, or that your dealer recommends. Nitto makes seat posts, but spend your Nitto money where it does the most good—on the bars and stem.

## Brakes and brake levers



Your Bleriot needs brakes with at least a 65mm reach, and that rules out conventional road-style sidepulls; and you can't fit cantilevers on a Bleriot because there are no bosses!



But the situation isn't bleak, and it's becoming even more not-bleak all the time. Currently the top two choices for Bleriot brakes are (1) The Dia-Compe Model 750 centerpull brake, (2) the Paul long-reach centerpull; and (3) A Tektro or "Silver" sidepull that's expected to hatch in the summer of '06.

Any road brake lever that works with sidepulls or cantilevers works for the Bleriot. We like the Shimano BL-400, a simple, perfectly shaped non-STI lever a lot. If you have big hands or hand issues, you might like the Cane Creek or Tektro lever, which are fatter. Just get one you like; availability isn't a problem.



## Cranks and Gearing

Pick what works for where you ride. The Bleriot doesn't have any gearing restrictions. Most Bleriot owners build it up as a triple with wide-range gearing. If you want to do that, we strongly suggest you use a Sugino XD crank with 46x36x24 chainrings and an 8- or 9-speed 11 or 12x32 or 34 cassette. Then you can go anywhere.

## Shifters and derailleurs

Our first choice shifter style is a bar-end. Bar-end shifters are easy, convenient, and don't encourage you to shift obsessively—because although they're convenient enough, they aren't right there under your hands all the time.

**Any double-compatible or triple-compatible** front derailleur will work, depending on your gears. It takes a clamp on, for a 28.6mm seat tube.

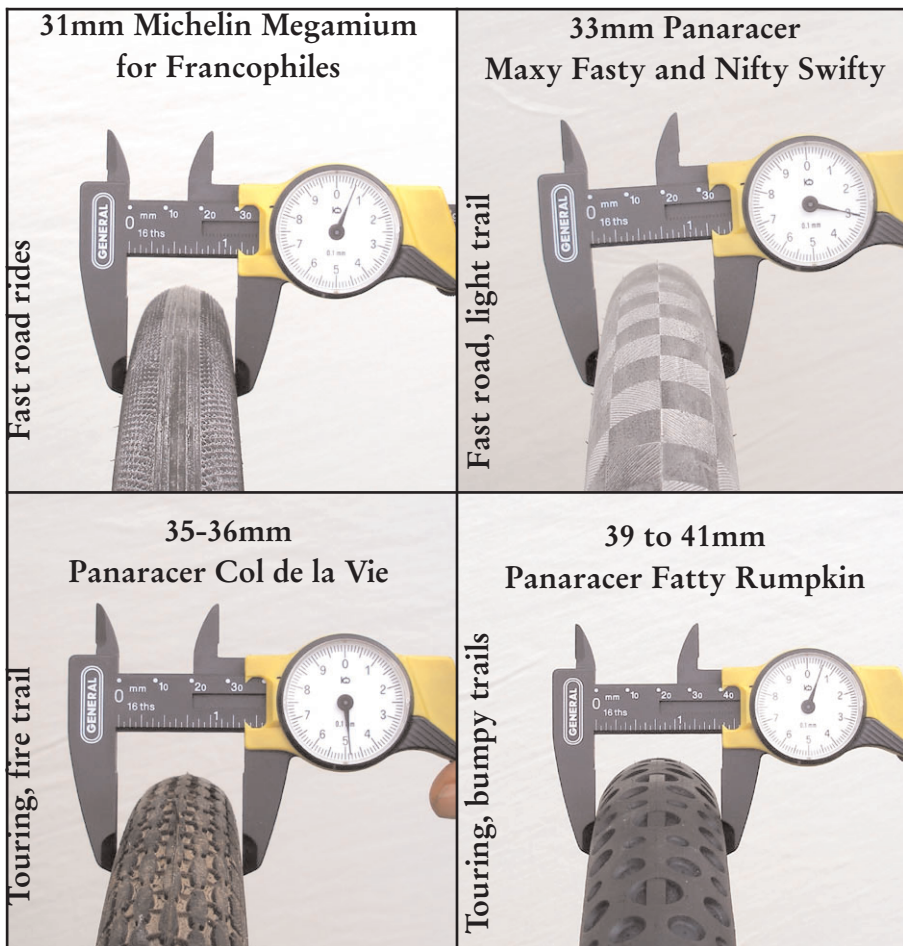
**For a rear derailleur, consider a Shimano rapid-rise** model, such as the Deore LX RR or Deore XT RR. The “rapid rise” means they operate in reverse, so that in the relaxed (not hooked up) position, the cage is under the big rear cogs. Rapid-rise rear derailleurs make more sense and work better. With either shifter, when you push the lever down, the gear gets easier, and vice versa. The only reason not to get this style of rear derailleur is if you've been shifting normal bar-end shifters for years and refuse to learn a new trick. That's okay, too—just get a normal-action rear derailleur.

## Wheels and Tires

**Rims.** The Velocity Synergy 650B rim is as good as they get and as good as they'll ever get. It's a fantastic rim, of a good width, well made, no corners cut, nice looking, and has a track record that gives us 100 percent confidence in it. Rigida from France also makes a nice rim (the Sphinx), but it is less available and heavier, so our first pick is the Velocity. In the future there will be more options, but it'll be hard to improve on the Synergy. It already existed as a mountain bike rim, and we just had Velocity make it in the slightly larger 650B size. We looked over more than seventy rim designs before settling on this one, so even though the selection isn't vast, the selection is excellent!

**Tires.** The 650B tire that people think of when they think of 650B tires if they think of 650B tires at all, is one that's about 36 to 38mm wide and runs on 30 to 50 psi. You can get 650B tires as narrow as 30mm and as wide as 41.5mm. Start off with a 33 to 38mm tire, and see how you like those (you will like those). Here's a brief rundown of tires.

There are several other models made by a handful of other companies (Schwalbe, Kenda, Hutchinson, Mitsubishi), but we recommend these.



About the tires up there: We recommend, as a starter tire, the Panaracer Col de la Vie. It's a terrific all-purpose general get-around tire that will give you the 650B experience you may have heard about from others.

The Maxy Fasty and Nifty Swifty are light and super rugged versions of the same tire. The Nifty Swifty has a super strong casing, extra tread for longer wear, a kevlar belt for puncture resistance, a wire bead, and half of it has a gorgeous rainbow SpeedBlend™ sidewall, for flash and sun resistance. The Maxy Fasty is the same tire without the armor and coloring, and with a kevlar bead. It weighs just 295g, and so is the fastest 650B tire out there—still with the cush of a 33mm tire.

The Fatty Rumpkin has the volume required for rougher trails, and a tread that works fine on the road, too. At about 390g, it's light, airy, cushy, fantastic. Folding bead (388g) or wire bead (430g). It could be your everyday tire, too.

## The three steps to getting the right size Blieriot

1. Find your pubic bone height (PBH)
2. From your PBH, determine your saddle height (SH)
3. From your SH, pick the right size. Here's how to do all that:



A simple tool for a simple job: A metric metal tape sandwiched between two slats of wood. With bare or socked feet ten inches apart on a hard surface, pull up until you smack bone. Have a friend read your PBH. Repeat thrice and go with the highest reading. Why not the average? Because you'll never pull past the bone.

### Finding your PBH (pubic bone height)

Stand on a hard floor with bare or socked feet ten inches apart.

Squeeze a **metric** metal measuring tape between two thin slats of wood (rulers or paint stirring sticks). Hold this assemblage with one hand in front of your crotch, one behind your bottom, and *pull up hard to the bone*. Have a friend take the measurement on the floor. That's your PBH.



### Determining your SH (saddle height) from your PBH

Saddle height—the distance from the center of the crank to the top of the saddle—is almost always PBH minus 10 to 10.5cm. If you're on a bike now that seems perfect, saddle height-wise, measure it. PBH minus 10 to 10.5. It would be rare to discover you're riding the saddle too high, but lots of people ride with it a little low.

## Using your correct saddle height to pick the right Bleriot

The proper Bleriot frame size is Saddle Height (SH) minus 16 to 19cm. If you have to go 15, it's still fine, as long as you won't ride a tire bigger than a 650B x 38. If you have to go 20, that's okay, too—but only big guys who are nearly off the charts should have to subtract 20. A 61cm Bleriot fits most riders to about 6-1.

Typical rider height (inches)	PBH	SH	Bleriot size
60 to 62	74 to 75.5	63.5 to 65.5	49
62 to 64	76.5 to 77.5	66 to 67.5	51
63 to 66	77.5 to 79.5	67 to 69.5	53
65 to 68	79.5 to 82	69.5 to 72	55
67 to 70.5	82 to 85	71.5 to 75	57
69 to 72	85 to 88	74.5 to 78	59
72 to 73.5.	88 to 91	77.5 to 81	61

What if you're too tall for a Bleriot? Then find a 700C-wheel touring bike that fits tires up to 40mm wide.

### Should you trust a method so crude, so simple, so quick?

Sure, as long as you do it right. This simple system is simple because we've eliminated measurements we don't use. It has been in use and refined for more than a decade, and thousands of riders have been properly measured and fit using nothing else. Measuring the height of your sternum notch, or femure-to-tibia ratio is more impressive than it is useful. In our opinion.

Bear in mind that there is more to fit than PBH, but PBH is a heck of a starting point, because it tells you how high of a top tube you can straddle, and therefore, what your biggest possible frame size is.

The rest of the fitting process is in the parts, not the frame, but it's all fine-tuning, and unless you start off with the proper sized frame, you'll need more than fine-tuning to dial in a fit and a good position.

### What is a good position?

A comfortable one. For most non-racers, that means a back angle of about 45 to 55 degrees with hands on the brake lever hoods. A slight bend in the elbow, so your arms can relax and absorb shock. A saddle position that puts your knee slightly behind the center of the pedal when the pedal is at 3:00.

There's a lot of myth and dogma in the area of fitting and sizing and position. But the goal of all methods is comfort and efficiency. They go together.

## Pricing and How To Order a Bleriot

### Pricing

A frame/fork/headset costs \$750. A complete bike built up the normal way, the way we recommend unless you have a compelling reason to do it another way, runs about \$1900 to \$2000. As of August 2006 we'll have good stock of bikes, and can likely ship a frame immediately, and a built-up bike within 3 weeks.

If you get a complete bike, it will have been expertly assembled and tuned and test-ridden, then disassembled minimally to fit it into the box. Typically, all you need do is screw in the pedals, re-install the seat post and saddle, insert and secure the front wheel, and then hook up the pre-adjusted front brake.

It's simple work, and a pro can do it all in five minutes maximum, or two minutes if rushed. If you want a complete bike but don't feel confident with this minor reassembly, take it to a bike dealer, expect to pay \$25 to \$40 for this, and then you'll be set.

### Later on...touch up paint? Tune-ups? Overhauls?

Touch-up paint is a pain in the neck, and we don't stock it. The frame is a minty blue color, and eventually you will get nicks and scratches, and that's just life. The best touch up, from a point of view of durability and ease of application, is fingernail polish. With younger and younger girls wearing it, it comes in an array of colors your grandmother would be shocked to see...including some blues. But we're partial to blood-red touch-ups, on any color frame.

Tune-ups are easy, any bike shop can do them. There's nothing peculiar, confounding, or unusual about your Bleriot, nothing that'll befuddle any bike mechanic. But we always recommend you get a book or take a class and learn yourself. Overhauls are more complex, but not that much more. So, same story.

### Ordering

By phone: call 1 800 345-3918. We'll make sure you get the right size. Know your height and PBH before calling.

By fax: 1 877 269-5847.

We're friendly and helpful, and have infinite time & patience!