

Momentum Mag
Presents:

The

BIKE
LOCK

Guide



Everything You Need to Know
About Bicycle Security

A COMPREHENSIVE GUIDE TO BICYCLE SECURITY

For most of us city cyclists, bicycle security is a daily concern. The moment of anticipation when you return after leaving your bike locked up, but unattended, for a few hours in the evening can turn to shock and dismay if it's not where you left it. Finding a broken lock in place of your bike may bring tears, cursing, plots of revenge, promises to get a better lock or a cheaper bike and other outbursts in a range of emotions. It's traumatizing.

Worst case is you abandon riding, giving in to the spectre of an ever-present threat of theft. Or you buy a beater bike, even though you ride many miles daily, just so it won't hurt so much next time it's stolen. But why next time? Bike theft may be problematic in many places, but making the effort to have the least attractive bike to thieves starts with the right locks and smart accessorizing. A nice bike, locked up securely with a quality lock

may not be worth the time when a lesser bike is locked up with an easy-to-cut lock right beside it. Bike thieves are an opportunistic bunch - give them nothing to work with.

We love our bikes, sometimes more than we should for an inanimate machine. Our bikes are our daily connection to the streets, the hidden parts of our cities, the slow rolls along park paths when the ride home from work deserves a few extra miles under a setting sun. They are part of our identity, let nobody take that.

In this guide, we share some stats on bicycle theft, the best ways to lock your bike (and some ways to avoid), types of locks to use, new technologies combating theft, a directory of brands and much more. Love your bike and keep it safe!

- THE **MOMENTUM MAG** TEAM

We want your bike to always be there for you! Here are four steps to get started: ▶

Invest in quality locks and locking accessories - get the best you can afford

Photograph, engrave, note the serial number, and log your bike with a registry like Project 529

Practice the best ways to secure your bike and removable parts

Don't give in to fear - be smart about locking up

3

WHY **LOCKING YOUR BIKE** IS IMPORTANT

5

HOW TO LOCK YOUR BIKE **THE RIGHT WAY**

7

DIFFERENT TYPES OF BIKE LOCKS

8

HOW TO **CARRY YOUR LOCK**

9

KEEPING YOUR **BIKE SAFE**

10

SPONSOR SPOTLIGHT: **ABUS MOBILE SECURITY**

12

BICYCLE SECURITY **BRANDS**

This guide is brought to you by:





WHY **LOCKING YOUR BIKE** IS IMPORTANT

WRITTEN BY **HILARY ANGUS**

When I was a student at McGill, I had a beautiful restored vintage road bike that I would use to zip around the cobbled streets of the city. My apartment, like many in Montréal, was at the top of a winding, exterior staircase whose small steps, sharp turns, and snow-covered steel didn't readily lend themselves to the carrying of bicycles. Every night, I locked my bike to the street sign outside.

It was only a matter of months before my bicycle honeymoon came to an abrupt halt. One morning as I came out to get on my bike, the

cable lock I had been relying on lay clipped in half in the slush – a weary reminder of the beautiful ride I used to own. Of course, I hadn't registered the bike. Even if I had, the police have more important things to deal with than yet another theft of a used, sub-\$300 university student's bicycle. I walked to school that day, and again every day for a year after that. Why would I get another bike, I thought, it's just going to get stolen again.

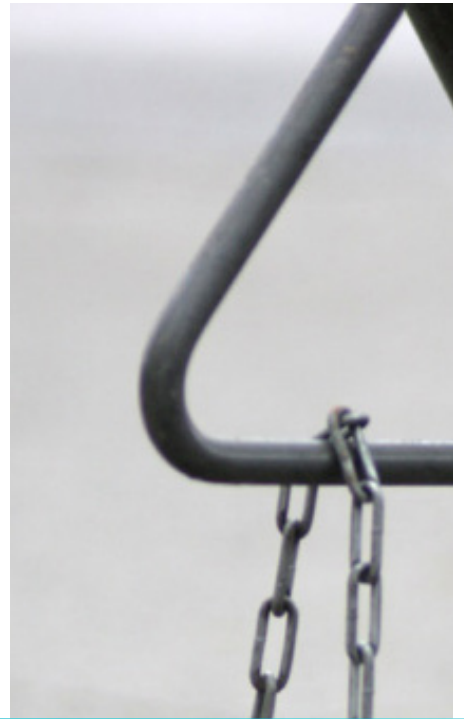
This, unfortunately, is an all-too-familiar story in the world of urban cycling. While the specific details

vary from case to case, the crushing end result is the same. One day you have a bicycle, the next you don't. In a perfect world we wouldn't have to worry about locking our bikes up, but this unfortunately is not that world. Not only locking your bike, but ensuring you've locked it with a strong enough lock in a secure enough location for your particular circumstance will be the difference between living a long and happy life with your bicycle, or bidding it a depressingly early – and sudden – farewell.

While reliable statistics on bike theft in the US and Canada are hard to come by – due to underreporting by victims – what we can say for certain is that the numbers are still alarmingly high. The FBI reports that 184,575 bicycles were stolen

McGill researchers asked 961 active cyclists about their experiences with bike theft. Of those respondents, half had had a bike stolen, and many more than once, for a grand total of 1,890 bikes stolen. But here's where you can see why reliable data on bike theft is lacking. All of those who had a bike stolen, only 36% reported the theft, and only 8.5% had their bike registered at the time. In the end, only 2.4% of the stolen bikes were recovered and returned to their owner.

While attitudes towards bike theft in many police departments are changing for the positive, recovering a stolen bicycle is still, at best, unlikely. Registering your bike will aid in the process, but the most effective way to keep



"ONE DAY YOU HAVE A BICYCLE, THE NEXT DAY, YOU DON'T"

nationwide in 2014, with an average value of \$418 USD. The National Bike Registry, however, estimates the actual number of bike thefts in the US to be closer to 1.5 million.

A study undertaken at the University of McGill in Montréal helps to shed light on why that discrepancy is so vast. Montréal has, for a North American city, a robust cycling population. Bikes are the transportation mode of choice for the vibrant city's many students, artists, musicians, and young professionals. Operating alongside them is an equally robust and enterprising community of bike thieves whose "productivity" would rival that in a large American city such as Los Angeles or New York. In short, folks have their bikes stolen a lot.

your bike in your possession is to do everything you can to prevent it being stolen in the first place. Make yourself aware of the level of risk in your area, and choose a bike lock that's designed for that level of risk. While bike theft may seem a trivial problem to those who don't bike or those who can easily afford to replace theirs if it's stolen, consider this: of all the Montréal respondents who had a bike stolen, almost one in ten never replaced their bikes. For many people, having a bike stolen means they're walking until they can save up enough money to replace it. For others, it means casting aside a hobby which may have otherwise blossomed into a lifestyle.





THE RIGHT & WRONG WAYS TO LOCK YOUR BIKE

WRITTEN BY ANNE MATHEWS + MOMENTUM MAG
ILLUSTRATION BY SARITA MANN

A man sauntered into our neighborhood bike shop and examined the display of locks. He hefted the most impressive one, a massive, heavy chain, looked at the price tag and frowned. “I don’t know if I can afford it,” he said to the shop owner.

“Can you afford to have your bike stolen?” the owner replied.

This is, in a nutshell, the basic logic of bike security. Bikes are light

and easily transported, convenient qualities not only for bike owners, but also for bike thieves. So it’s worth taking a few simple steps to keep your ride locked down when you aren’t around.

The first step to securing your bike is to choose the right lock. There are several good options out there, depending on your needs, where you need to lock up and how much you value keeping your bicycle.

▲ ABOVE: THE RIGHT WAY, WHEN USING A U-LOCK AND CABLE

LOCK TYPES: CHOOSE WISELY

My childhood bike lock was a sparkly pink cable combination lock the thickness of a drinking straw. At some point, I realized it could be snipped in half with a pair of elementary school scissors. (The combination could also be inferred by the loud clicking sound that the correct numbers made.) Such locks are largely symbolic gestures. Flexible cable locks are easy to use and good for locking to difficult structures, but the lower-end models often fall into this “easy to breach” category. In Amsterdam, I watched an enterprising gentleman whip out bolt cutters and chop my much sturdier cable lock in two casual strokes.

My new personal favorite lock is an ultra-thick, heavy chain. It makes you look paranoid, but it's very effective. U-locks are typically stronger than chains, however their shape and inflexibility limits what you can lock to. Combine them with a cable lock to secure frame and both wheels at once. Folding locks combine the strength of a u-lock with the versatility of a chain and can be daisy-chained for cargo bikes or awkward locations. They also fold up for easy carrying on the bike. Above all, consider the lock a form of insurance against theft and get the best one you can.

[JUMP TO: TYPES OF LOCKS ►](#)

THE LOCKING UP

Lock in hand, you'll next need to decide what to lock to. In many cities, entire neighborhoods lack dedicated bike parking. When racks or locking posts aren't handy, streetlamps are a decent option – as are permanent street signs more than six-feet-tall, or short parking meters with enough bulk at the top to frustrate thieves. Note that locking to parking meters, street signs or other ‘street furniture’ may be unlawful in your area, and getting your bike impounded still means you are walking home. Avoid locking to flimsy trees, bushes or removable poles (check to see if street poles are attached to the pavement with a removable bolt – if so, look elsewhere). When locking to other infrastructure (such as a stairway handrail), be considerate of others and also aware that building security may sometimes remove bikes that seem hazardous.

While locking up, make sure your lock actually goes through your frame – rather than, say, around your seat post or a spoke, where it can be conveniently slipped or clipped off. (You may laugh, but it happens.) An ideal place to lock is through both the rear wheel and frame, and inside the rear triangle of your bike frame. Adding a cable for the front wheel completes the set up. (see illustration)

Consider also what to do about the parts of the bike that aren't secured by your lock. If your wheels and saddle are easy to remove, try running your lock through a wheel as well as your frame and securing the quick-releas-

able elements separately or taking them with you. Better yet, replace the quick-release with bolts or locking skewers. Riding home on a bike with no seat is embarrassing, while riding a bike with no wheels is impossible.

Some folks prefer to lock up out of sight, while others favor well-lit, well-trafficked spots on the premise that it's stressful to try and subtly saw through a lock in front of a teeming crowd of people. Either way, position your bike upright where it can't fall over and out of the path of cars and pedestrians. I've seen an SUV sweep up onto a curb and right over the wheel of a Schwinn locked to a bike rack; the wheel issued a haunting cry as it folded.

LOCKING ETIQUETTE

Good locking manners are mostly intuitive. Don't lock your bike to someone else's (unless you know it's OK with them, and they can get a hold of you when they want to leave). Avoid jamming your bike up against someone else's in a crowded rack or bike pile. Make sure your bike isn't blocking (or tangled up with) other bikes or in the way of sidewalk amblers. And finally, be gentle if you lock to a tree – don't trample vegetation or gouge bark. That's a living thing, friend – treat it with respect.

Once you master the art of securing your bike effectively, you can breathe (a little) easier knowing you've done what you can to keep your trusty bike out of the hands of thieves, and where it belongs – waiting for you to hop on and ride off.

IF YOU THINK YOU CAN'T
AFFORD A GOOD LOCK, ASK
YOURSELF: CAN I AFFORD TO
REPLACE MY BIKE?

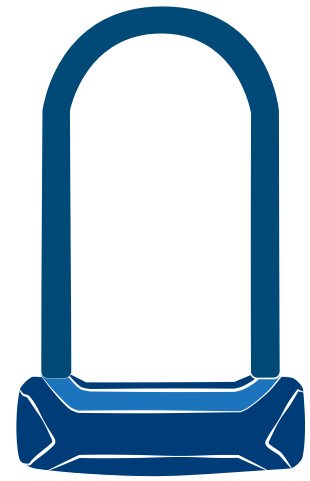
TYPES OF LOCKS

WRITTEN BY **DAVID NIDDRIE** + ILLUSTRATIONS BY **SARITA MANN**



◀ FRAME LOCK

Standard on many European city bikes, the frame lock is permanently installed behind the seat tube and prevents the rear wheel from rolling when engaged. Ideal for quick stops in safer locations, this lock immobilizes your bike. Some models come with an external chain for locking to a rack, adding another level of security.

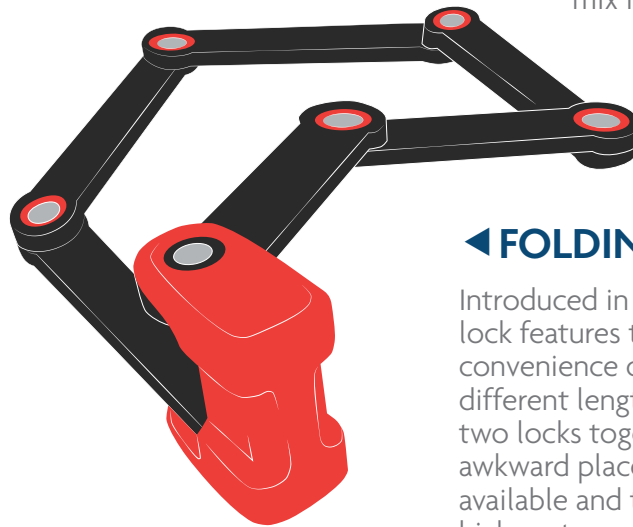


▲ U-LOCK

Tough, tested, and true, the U-lock has been a solid choice for locking up since its introduction in the 1970s. With modern lock cylinders and treated steel, U-locks can be rated very highly for maximum security purposes. Adding a cable to the mix increases the security of your bike frame and wheels.

▼ CABLE LOCK

Many advancements have been made to the humble cable lock since using it on the playground when you were younger. Today's cable locks combine different materials for strength and flexibility, but are generally used in lower risk situations or as a secondary locking method (with a U-lock for instance). Combo and key versions readily available.



◀ FOLDING LOCK

Introduced in the mid-2000s, the folding lock features the strength of a U-lock and convenience of a cable or chain. Available in different lengths, one can also 'daisy chain' two locks together, to secure larger bikes to awkward places. Combo or key varieties are available and the security rating can be very high on top models.



CHAIN LOCK ▶

The classic bike lock - a metal, linked chain, wrapped in fabric and secured with a heavy-duty padlock or mini U-lock. They look like serious business and have the weight to prove it. A long, treated chain can wrap around your bike frame, wheels and the bike rack with ease. Higher-end models feature modern lock cylinders, heavy-gauge, hardened steel for bolt-cutter resistance.



HOW TO CARRY YOUR BIKE LOCK

WRITTEN BY **HILARY ANGUS** + PHOTO BY **DAVID NIDDRIE**

As you move towards the high-security end of the bike lock spectrum, many of the locks become a bit cumbersome. Unfortunately, theft prevention does not fight featherweight – you can expect your lock to weigh at least a couple of pounds. Basically every lock on the market comes with some sort of holder to attach the lock to your frame when not in use. But, especially in the case of U-locks, many of them are a bit finicky and become tiresome after repeatedly fiddling with the levers or buttons as you go about your day.

This minor yet frequent annoyance has spurred an entire sub-industry of alternative holders for U-locks, and inspired lock manufacturers to come up with designs that are secure as U-locks, but easier to transport around.

The ABUS Bordo and Hiplok are both great examples of secure locks that transport easily. The Bordo, a surprisingly lightweight lock for its security rating, folds up and slides smoothly into a rubber case that attaches to your frame's water bottle mounts. The Hiplok, as the name suggests, is designed to be worn around the hips like a belt.

Some smaller U-locks, such as the Kryptonite Evolution Mini-5 of bike messenger notoriety, can slip into the back pocket of your jeans or through your belt loop. A few companies such as Mission Bicycle

Company or Fabric Horse design loops for your belt that increase its carrying capacity to accommodate larger U-locks. Companies such as Oopsmark and Walnut Studiolo make a similar product, but the loop sits behind your saddle so you can quickly slip the lock on and off your bike.

Beyond the product offerings, there are a number of ways to transport different kinds of locks that depend on how decked out your bike is (does it have a basket or back rack?), or what you're carrying. Stating the obvious, you can just put the lock in your bag, toss it in your basket, or strap it down to your back rack with a bungee cord or webbing. Putting the lock inside a bag or backpack can become surprisingly tiresome if you're the kind of person who makes a lot of stops in the day, so the latter two in that case would be more advisable. You can also sling the lock over your handlebars, lock it to your frame, or lock it your clothing, but they do tend to swing a bit which may at best, throw off your balance, or at worst, get in the way of some your bike's moving parts.

The best way to carry your lock depends first, on what type of lock it is and second, on what accessories you already have on your bike. When choosing a lock, consider how it can be carried and choose a lock that will work best for your riding style.

KEEPING YOUR BIKE SAFE

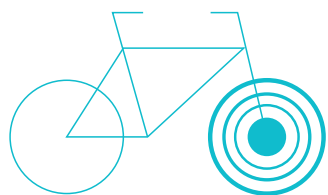


What do **lock ratings** mean?

When you're perusing the shelves for your new bike lock, you'll probably notice that a few of the companies display security ratings for each of their models. "Rated 7 for Security," or a large "8" in a circle towards the bottom of the packaging. These rating systems indicate what level of protection you can expect from each lock, but they differ from company to company. For instance, ABUS' security ratings go from 1-15, with an additional rating of 20 for motor-bike locks, while Kryptonite's system is 1-10. While there isn't an industry standard, each company will have a section on their website indicating what each rating means. A rating below 5 will typically mean this is a secondary lock meant for securing components or for use in areas with little-to-no risk of theft, while a 10 or 15 will mean you can feel comfortable locking your bike up in high-risk scenarios. The best approach is to just read the brief rating chart for each company you're considering to gain an understanding of their products.

Beyond the security ratings, there are also a number of organizations that used standardized testing to verify the security of different bike locks. You'll see their seals on the packaging or on the webpages for different locks. Think of them as the "Certified Organic" of bike locks. Thatcham and Sold Secure in the UK, Stichting ART in the Netherlands, SFF in Sweden, FG in Norway, and VDS in Germany are just a few of the seals you can expect each lock to have earned. If the lock you're looking at doesn't have any seals at all, you can be sure it isn't worth your time or money.

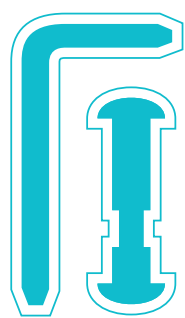
WRITTEN BY **HILARY ANGUS**



New technology to keep your **bike safe**

As much as we'd love to pretend otherwise, even the strongest locks are still breakable.

Fortunately, the advent of technology has brought with it a number of new methods not only to lock your bike up, but to recover it in the event it does get stolen. Small, subtle GPS-trackers built into bicycle components are probably one of the most effective ways to retrieve your stolen ride. Companies such as Fortified, Connected Cycle, Cricket, Helios, Tile and Integrated Trackers make a variety of GPS-trackers that hide under saddles, are integrated into pedals, slide under top caps or disguise themselves as seatposts. They connect to your smartphone so you can constantly track the location of your bicycle in real-time. Many also come equipped with tamper alerts. When you lock your bike up you register it as stationary, and the device will notify you by phone as soon as it is moved. These clever devices blend into the regular framework of your bicycle so as not to be noticed by thieves, but can be immensely helpful in getting your bike back.



Securing the components

When you lock a car or a home, you contain everything valuable inside a barrier, closed off to the outside world. Unfortunately, this isn't the case with bikes. Bicycles are made up of a variety of parts, most of which are removable with a small, standard hand tool, or in some cases even the simple flick of a lever. Locking your frame to a rack is great, but that still leaves your wheels, saddle, seatpost and even handlebars vulnerable to theft.

There are a few ways to secure the components of your bike, ranging from a little inconvenient to perfectly disguised and practical. The most straightforward way to secure the easily-removable parts of your bike is to simply remove them yourself before anyone else can. If you have a quick release wheel and/or seatpost, lock them separately or take them inside with you every time you lock your bike up. This can get a bit tiresome after a while though, so most urban riders prefer to use secondary or component locks. For your wheels, a secondary lock or a cable does the trick, but seatposts and handlebars are a bit trickier. Pinhead is a company that offers a locking system for your entire bike. The locks are designed to secure your wheels, seatpost, saddle and headset, and once installed they stay permanently on your bike. OnGuard also makes pin locks for your wheels, and Interlock offers a seatpost with an integrated cable lock to secure your post and saddle.

A BRIEF HISTORY OF ABUS

1924

August Bremicker, along with several of his sons decided to start a lock manufacturing company in the town of Volmarstein, Germany. They set up a blacksmith's shop where they used sheet metal and steel to produce their first locks. Today that original building in Volmarstein is still used by ABUS and has been built up and expanded - but still houses the padlock assembly factory. An important part of ABUS history is that, today as in the beginning, ABUS has been responsible for the design, engineering, and production of the high precision tooling used in the manufacture of their locks, as well as the production and rigorous quality control the products undergo. ABUS owns the process from beginning to end in it's own factories, resulting in a very precise, high-quality piece of security equipment.

1949

ABUS launched the **Diskus padlock** - the padlock design that is still famous worldwide today.

1957

ABUS opened their **second manufacturing facility** - a factory in Rehe/ Westerwald, Germany - dedicated full time to bike and motorcycle security with their own production, testing, quality control and R&D facilities. This factory has remained the **home of the mobile security operations** to this day and continues to grow with demand.

1958

ABUS debuted the **first bike lock** - a combination frame lock called the **ABUS 1000**.

1971

ABUS produced the **first U-lock**. It was essentially a padlock with a very long shackle and was originally intended for use with mopeds.

1996

ABUS was accepted into the **German Standards Brand of the Century Book**, an enormous honor for a German Brand.

1999

ABUS introduces the **Plus key**, a revolutionary level of pick protection offering more than **250,000 key variations**.

2005

Launch of the **Bordo folding lock**.

2011

The Bordo wins the **Red Dot Design award** and ABUS opens Chicago offices in the **United States**.

SPONSOR
SPOTLIGHT

PAID ADVERTISING FEATURE

MOMENTUMMAG.COM





WHAT MAKES ABUS UNIQUE IN BICYCLE SECURITY?

The company is still family owned - it's their name on all of the products that leave their factories – and this leads to a high level of pride in what is produced and a deep commitment to producing locks of the highest quality. The fact that ABUS locks are still manufactured in their own factories and designed by their own engineers is very unique these days. You will find employees working in ABUS factories who have been with the company for 20, 30 or even 40 years. There is a degree of historical knowledge that is irreplaceable and invaluable. At the same time, ABUS is not content to do things the old ways - constantly innovating, working with tried and tested materials and designs as well as new materials and methods to try and provide the highest degree of security and ease of use for customers.

WHY SHOULD A CUSTOMER CHOOSE AN **ABUS LOCK**?

Worldwide, German engineering represents quality and precision and ABUS is no different. The brand has more than 90 years of lock making experience baked into every lock. ABUS locks undergo intense, rigorous testing for everything from methods of attacking to testing the brackets on rattle machines to the most gruelling of environmental testing. ABUS have industry-best corrosion resistance because they use technology from marine security on their bike and motorcycle security, making ABUS locks great in really cold temperatures and in cities with really salty air.









WHAT ARE SOME **PRODUCT HIGHLIGHTS** FROM ABUS?




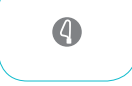


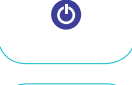



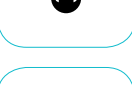

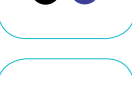






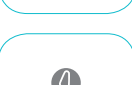






ABUS calls the Bordo Centium the most beautiful piece of real bike security available (pictured left). With a solid stainless steel lock body, leather-look cover on the steel bars, a PLUS cylinder and redesigned bracket, this is the lock for stylish commuters. The Granit X-Plus 540 is the flagship U-lock, incorporating many of the company's innovations including the X-Plus key cylinder and a double-bolting shackle with a maximum security rating. The Granit CityChain X-Plus is another top-rated lock, using the same X-Plus cylinder as the U-lock above. The CityChain comes in various lengths of 10mm hardened steel chain links in a protective sleeve to secure high value bicycles with ease.



BICYCLE SECURITY BRANDS

USE THE KEY BELOW TO FIND THE RIGHT BRAND OF BIKE LOCK FOR YOU.

-  **u-lock**
-  **folding lock**
-  **cable lock**
-  **chain lock**
-  **frame lock**
-  **smart lock /GPS**
-  **other/unique**
-  **accessories**

	ABUS mobilesecurity.abus.com		Linka linkalock.com
	Blackburn blackburndesign.com		Litelok litolok.com
	Connected Cycle connectedcycle.com		Magnum magnum.ws
	Cricket cricketwireless.com		Master masterlock.com
	Filzer filzer.com		Mobiloc mobilocgps.com
	Fortified fortifiedbike.com		OnGuard onguardlock.com
	Helios bars ridehelios.com		Pinhead planetbike.com
	Hiplok hiplok.com		Planet Bike planetbike.com
	Integrated Trackers integratedtrackers.com		Skylock skylock.cc
	Interlock the-interlock.com		Sonus Lock sonusalarm.dk
	Kabletek flexweavecables.com		Tallac tallachouse.com
	Knog usd.knog.com.au		Tigr tigrlock.com
	Kryptonite kryptonite.com		Tile tallachouse.com



MOMENTUMMAG.COM