



NORDIC ULTRATUNE UPDATE

News & Notes from NORDIC ULTRATUNE

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February 2009

Volume 11, Number 4

News and Notes

February...

Winter has been very busy at Nordic Ultratune, and that's a good thing.

Through the holiday season, it was full gas around the shop, getting skis serviced for SuperTour skiers and skiers who forgot about their grinding needs until the first snowfall.

January was focused on the World Cup races at Whistler Olympic Park, where I again joined the Slovenian team to provide ski service.

Also in January and early February, there are four local races that add some extra hours to the schedule and keep things interesting here in the Methow Valley. Particularly exciting locally was the first JOQ race weekend at the new racing trails.

Newsy Newslettery Newsiness...

Ultratune newsletters are coming out more often through the season this year, though they may be a few pages shorter than the updates from previous years. At the same time, Ultratune has added a blog to our web presence. The blog has short and timely articles on events, testing, product info, etc. Check it out at: <http://blog.ultratune.net>

In March, I'll have another newsletter that will have some highlights for the coming '09/10 season!

-Mark Waechter

Schedule

During fall and winter, Ultratune is open Thurs, Fri, Sat, Sun, Mon, 11-5. Stop in and say hello! Most days I'm in the shop earlier, but those hours are a sure thing. Usually Tuesday and Wednesday of every week are reserved for ski testing and a little time off.

Birkie Success

I got a quick note from Andy Gerlach of the Saab Team, thanking me for work on some of their new race skis. Dussault, McCabe, and Trygstad (1st, 4th, and 6th) raced on the 615b grind. Also, I got a call from Brian Gregg (4th overall) telling me he had great skis thanks to the great waxing by Bryan Fish and the 615b structure.



It's racing season. Nina Ekblad, a J2 from the Methow Valley Nordic Team, shows her game face. (Kristen Smith Photo)

New for 2009-2010
The Rossignol Xium World Cup



Three pairs of the new 2009/2010 **Rossignol Xium WCS** skate skis arrived at Nordic Ultratune last week.

Rossignol has trimmed weight from the tip - that's the most noticeable structural difference. The tip is pared down to the carbon layer with reinforcing remaining around the perimeter. In addition, compared with the Xium S1, some fiberglass in the top-sheet was replaced with carbon fiber. The intent was to make the front end of the skis more compliant; a bit softer. In addition, some weight has been removed from the tail (not visible, but that's the story). The result is a lighter tip that will swing more easily ("reduced moment of inertia" in tech-speak) and with a quicker feel.

The WCS will be available in three lengths - 181, 187, and 193. Interestingly, the side-cut on each size is being specially tweaked for best performance in that particular length. The 187cm version will remain the same as the profile of the Xium S1, but there will be minor changes to the side-cut profile on the 181 and 193.

The bases of the new skis are flat and very easy to work on. A racing grind will go on the pairs from Ultratune, of course, and it's nice for me that I won't have to work too hard to make them fast. They're nice, very nice.

The mid-section camber retains the Rossignol characteristics that I'm accustomed to for fitting the skis. Camber height at half-body-weight and full-body-weight are in the same range, and the open pocket dimensions are similar as well. The skis I've tested have been closely matched, too.

Of course, there are some minor cosmetic changes too. My favorite

thing is the old-school red circle with the R in it. It's about 6 inches in front of the binding plate, and I think it's perfect. I like that.

Also a new font for the big ROSSIGNOL on the front, but will anyone really notice that but me? Good for podium shots, though.

Cosmetics were already great on the Xium, and people like the orange color more and more. I think Rossignol was about a year ahead of the curve on color sensibility. It's just hard to write a poem about orange Rossignols.



The new Xium WCS has material trimmed from the tip, revealing the carbon layer beneath. Smartly, they retained a sturdy perimeter.

I finally got a pair on the snow. The skis have the familiar feel of the newer generation of Xium, but they definitely do feel a bit livelier in the front. During accelerations and energetic skating with the legs, they feel quick and smooth in the front. They don't feel "loose" or unstable, but just more light and snappy. The skis are stable. They turn predictably and respond especially well to confident assertive maneuvering. And the WCS handles firm tracks well for a ski with a compliant front end - very well, in fact.

It's a winner. I think the change is an evolutionary step from the Xium. They've tweaked a good thing to make it even a little better, rather than bringing out an entirely new ski design. I think that it's not only smart, but will allow racers to improve their quiver with a new pair of skis, rather than having a new pair that have an entirely different feel from the rest.

Rossignol gets high marks from me for the Xium WCS. Now I'll just have to wait to get a pair of 193's...



New Grind Available: "PL3"

For the past couple seasons there have been a few skiers using a warm/moist structure on skis, with the label showing **PROTO** on the tag. It's been used by about 20 skiers, and the results have been very positive.

The new structure is called PL3, which was derived from "...plus linear", referring to short-hand notation in my workbook that described what was being done during tests.

The PL3 grind is a cross structure, with a linear over-grind. It works well in conditions around freezing with moist snow. In transformed granular conditions – when the base is composed of consolidated granules with large features – this structure can perform well below freezing. Primarily, though, it's a warm spring grind for skate and classic skis. It resists sticking when things get sunny and damp, while remaining pretty free-feeling on "normal" warm snow.

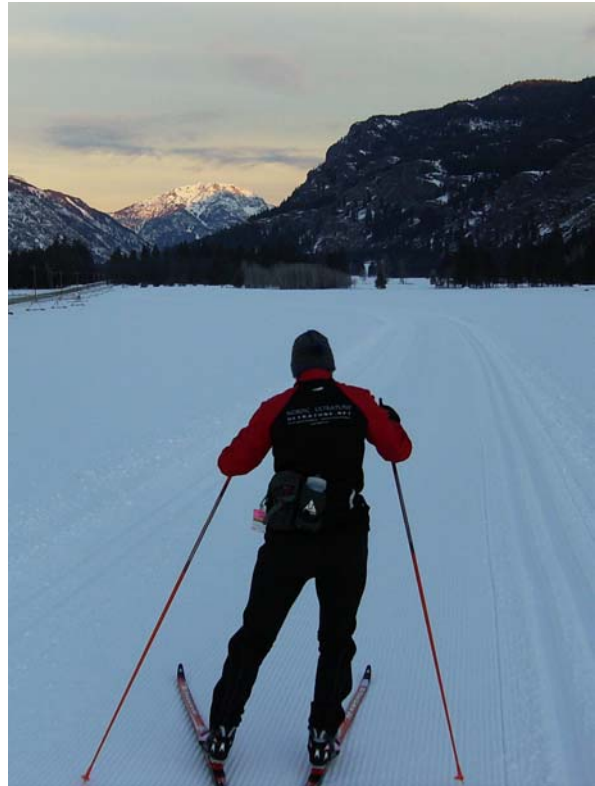
The PL3 grind will not be a great performer in cold conditions with fine, dry snow. The new PL3 structure is probably not the choice for your "one and only" pair of skis, but makes a good warm grind as a complement to a pair with a colder structure.



A few of the bibs on the shop wall at Ultratune.

New Skis for Autumn 2009 Delivery

Nordic Ultratune has begun taking orders for hand-picked, flex selected skis. Email or call if you'd like to be on the list for new skis! xcgrind@ultratune.net 509.996.4145



Saturday Morning Easy Distance in Mazama, WA.

"Grind Over the Weekend" Schedule

Nordic Ultratune has a grind schedule to minimize the turn-around time for ski service. Skis that arrive by Thursday will be shipped the following Monday (4 days later) by FedEx, which assures the customer will receive their skis before the following weekend. With Ultratune's "grind over the weekend" schedule, skiers can ship their skis for stone grinding and miss only one weekend of skiing on their race skis. *There's still enough time to make your skis fast for the last races of the season!*

The 2009/2010 hand-picked ski program works like this: You send me a note letting me know what you want; I'll need some size and weight info, along with information on preferences. Boot size helps, too. I pick the skis in October, and then I'll contact you for grind info and payment. They'll be stone ground, hot-boxed, bindings mounted, etc, and shipped to you. xcgrind@ultratune.net

Don't Waste Your Breath
Respirators in the Wax Room

The typical racer, or rec-racer, will use some high-fluoro additives several times per season. The big race calls for big measures, and fluoro powders are the big guns of the wax room.

It's also common knowledge that fumes from fluorinated gliders can cause respiratory problems and can be an irritant for the eyes.

Since the late 1980's, there have been stories of fluoro powders causing sore throats, burning eyes, blisters on the tongue and lips, irritated lungs, and even bloody noses. It's a no-brainer: this cannot be good for you.

How many skiers use a respirator in the wax room? Do you? It's common knowledge that ventilation and a respirator are needed, but I rarely see them in use.



Good: A low cost "half-mask" respirator.

In the past year I've switched from a low-tech half-mask respirator, and started using a full-face respirator that has eye coverage. The difference is significant. With the full-face respirator, I can

get pretty close to the action without any problems from fumes. The seal around the face is really air-tight with absolutely no leakage.

*If you have a respirator, use it!
If you don't have a respirator, then
get one. And use it!*

The less expensive half-mask respirators can be purchased for as little as \$20 and they have them at most hardware stores that sell paint. But check closely to make sure they've got good filter canisters and are better than simple dust filters.



Better: A full-face respirator with cartridges for organic gases.

The full-face respirators are much better, but the price is quite a bit more expensive. Its cheap insurance and you'll only have to buy it once.

I'm not really in the business of selling respirators, but if you want or need a full-face mask and don't have access to one easily, then I could help you get one. Just email for information xcgrind@ultratune.net

**World Cup
Whistler Olympic Park**
by Mark Waechter

In January I worked with the Slovenian team, helping with ski testing, waxing, and logistics in the days before, and during, the pre-Olympic World Cup races at Whistler Olympic Park.

Here are some day-by-day reports from that week.

Monday January 12th: Skiers Without Skis

I left the shop late Monday afternoon and arrived at Nat Brown's ranch, north of Princeton, BC, pushing through 200 miles of foggy, cold, snowy driving. After some peck-and-hunt navigation, I located the carefully unmarked drive, pulling in around 8:30 p.m. The Slovenian team is staying as guests of the Princeton Nordic community, and Nat Brown, resting and preparing for the pre-Olympic World Cup races scheduled for this weekend.

Immediately upon arrival I was greeted by the Slovenian team. I had a nice visit - and a big piece of cake - with returning athletes Katja Višnar, Vesna Fabjan (world U23 sprint champ for '08), and Barbara Jezeršek. I spent about a half-hour catching up with Vesna and Katja before joining the service/coaching staff in Nat Brown's cabin.



At Nat's ranch: This is the wax cabin and sleeping quarters for the wax guy.

Baggage hasn't all arrived. The athletes are making the best of it; they seem calm and in good humor, considering the situation. Monday they ice skated and did a gym workout. The coaches and service people are carrying the

stress, and are busily trying to locate and gather the assortment of bags and skis that seem to have been scattered across two continents. Near 10 p.m. most of the skis arrived and a few bags of personal clothing. Hopefully the rest will arrive during the day on Tuesday.

I brought a lot of the service gear - test skis, wax tables, irons, etc, - so that part of the show isn't missing at all.

It was good to spend the evening catching up with the team, and meeting the new faces in the service and coaching crew.

Tuesday January 13th: Skis and Sunshine

The ski trails on Nat's ranch are in a small river valley situated at 3100 feet, with open fields and wooded hillsides. The meadows are dotted with heritage log buildings, and it's rustic and beautiful. The morning is punctuated by the sound of the groomer firing up and heading out onto the tracks.

Today the skiers will be sharing some gear to make do until the final pieces of everyone's baggage arrives.



Vesna Fabjan, Barbara Jezeršek, and Katja Višnar

This morning (Tues) I helped get skis ready for the a.m. training, an intensity session on classic skis. The three Slovenian skiers, Vesna Fabjan, Barbara Jezeršek, and Katja Višnar (see pic, they're shown in that order, left to right) all seemed happy to get back on the snow after a couple of unplanned rest days. One skier is using borrowed skis, boots and poles, but I don't hear any complaints.

After getting the team's skis ready and the skiers out the door, I took an opportunity to hop on skis

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to check out the trail network in the bright sunshine. There's some excitement and adventure when I ski on trails for the first time. The trails here are well groomed (with a YTS), and have a nice mix of easy terrain and some race-quality climbs.

The trails are "old school" - winding and narrower than 21st century "FIS trails", so the descents are just a blast to ski down, with curves and rollercoaster hills. Fun, even exciting the first couple times down, since I didn't have a feel for the trails and didn't know exactly what was coming up around the corner. I did a couple laps of the trails and returned feeling refreshed.



Vesna Fabjan and Katja Visnar

The cabin I'm in (sharing with Marko Gracer, the head coach) has no running water. It's the wax cabin, primarily. Heat is from two woodstoves. There is electricity, though. I think the cabin is 18 x 21 ft, with an attic with two very firm beds. It was a surprise when I went to bed and started reading --- Marko's over in the other bed and he pops open his computer and starts up the internet... I'm immediately thinking, "WHAT? Wireless internet?!" yep; go figure.

I'm sneaking in a short session on the computer, some lunch, then I'll clean the klister off of the morning's skis...

Wednesday, Jan 16th: Move to Squamish

I didn't get many notes written for the day – it was just too damn busy. After morning workouts, everything got packed up, and I did the long drive to Squamish, BC, arriving there at the hotel after 9 p.m. The drive over the pass was foggy, snowy, icy, and once we got to the lower altitudes on the west side, it was wet and messy. Lots of windshield washer fluid hit the screen.

Thursday, Jan 15th: Notes from Whistler

Miha and I got breakfast at 6 o'clock then I drove the car with service equipment up to the race venue. We had a very full day of work. Setting up the wax trailer, getting accreditation credentials, and sorting through all the skis are the first tasks. And that's just the stuff that needed to be done before an apron was put on and wax irons warmed up. We had a full day of work to do up there.

Immersion Diversion

Our lead serviceman this year is Miha (pronounced like Mika, but not *exactly* like Mika because the "k" isn't quite perfect but close enough for a non-Slovenian speaker). Miha is a very fit 30 year old skier-turned-serviceman.

The coaches are Marko Gracer and Vladimir (also called Volodja, which I think is a nick-name for Vladimir ???). Vladimir is an older guy and very nice but speaks no english (understands it, I guarantee, but doesn't speak it). He used to be the nat'l coach for biathlon 20+ years ago, and is now the coach (trainer, technique) for the 3 women who are here.

So there are the 2 coaches, 1 serviceman and me, the final service guy. Everyone seems to get along better than "okay" – everyone gets along really well.



This grip wax isn't quite right... ...Barbara Jezeršek has a sense of humor and keeps it light.

The primary concern today (Thursday) was making sure we got the grip wax right for Friday's classic sprints, and getting several pairs of skis ready for each athlete to pick the A + B pairs of race skis. The afternoon was spent on glide tests. A huge bulk of work was accomplished, and it was done with relatively little stress.

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I'll briefly say that the race site is gorgeous. Very nicely done. You should see it. It's great.

We drove back to the hotel after the coaches' meeting and the car seemed to be running on empty. We stopped at the Petro-Can about a half-mile from the hotel and gassed up the Subaru.

While the gas was pumping, Barbara and Vesna came jogging up (out for their late afternoon jog). The Subaru was quickly commandeered by a team of Slovenes who wanted to go to Starbucks, so I drove the crew in search of "Grande no-whip mochas", which seem to be a coveted bit of Americana (or Canadiana, in this case). Everyone happy with that treat, we scooted the over-packed Subaru back to the hotel.

The rest of the day consisted of quick showers, dinner, and meetings. Here I am, now at nearly 10 p.m. Thursday night, just getting the first rest minutes of the day.

Friday morning will be another very early start. Sprint qualification starts at 9:30, which means we'll be in the wax room very early again. Stay tuned.

Immersion Diversion

During the hours spent in the wax room, there's plenty of time for idle discussions and random comedy. This week, one of the recurring themes was the pronunciation of certain Slovenian vowels. Apparently I manage to botch one of the vowels and it was the week's mission (it seemed) to help me get it right.

In particular, the phrase "*Nima problema, šef*" (which translates as "no problem, boss") has the word "*šef*" which is not pronounced "shief", and it's not pronounced "shef", and it's not pronounced "shafe", but depending on which person on the team used the expression, you might hear it any of those ways. Except when it was me trying to use that phrase, then it was always wrong. Always. Somewhere toward the end of the evening on Saturday night, though, I guess I made the connection and got it right. Maybe just once. But I got it. *Nima problema, šef*.

By the way, there's not a Rosetta Stone version for Slovenian language.

Friday, Jan 17th: Hard Work & Hard Luck

I'm writing this on Friday night...

Today was a very long day with a lot of hard work, a bit of hard luck, and a measure of disappointment. We spent a couple days preparing for the sprint qualifiers - which is ultimately a matter of spending two days working to get 3 pairs of skis ready for a 3 minute event. Then BAM it's over and I'm back in the wax box for another session of work, preparing for the quarterfinals.



Terrific scenery when the skies are clear

I handled the testing of powders (fluoro powders for glide) this morning, while others were preparing athlete warm-up skis and test skis for grip. With a short classic race, the glide is important, but a little bit secondary since grip waxing is typically the make/break issue. After the testing, I did the gliders for all the race skis (2 pair per athlete, just in case), then helped with final work on grip wax.

In the end, Katja Visnar qualified for the heats (25th in qual), and then crashed in the quarterfinals and finished too far back to advance. Once the race is over for the racers, there's still a warm-down to be done, a bit of lunch, then a 45 minute ride back to the hotel.

For the service guys (me and Miha), it was a long afternoon. Cleaning skis, waxing skis, scraping, brushing, polishing, testing. Chop wood, carry water. By the time we got back to the hotel, it was after 6 p.m. A hot shower, then dinner, then the daily team meeting, and voila it's 9 o'clock.

Did I mention that it was a beautiful day for skiing here? Very nice.

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Saturday, Jan 18th: Racing

Saturday's race, for us, was the 15km Pursuit. For Slovenia, the racer of the day was Barbara Jezeršek, a 22 year old firecracker. It was another beautiful day, and the waxing was pretty straight-forward. The coaches, Marko and Vlad, worked hard on the grip wax with Miha, and I tested gliders again. I think we got good grades on the skis today; Barbara felt that her skis were good – on par with the others on glide and with reliable grip.

The course had some challenges for the service crew. The south-facing slopes warmed-up considerably while the north sides of the hills remained quite a lot colder. The result was that skating on some sections was a little slow for everyone.

Sunday, Jan 19th: Sprint Relay, and on the Road

The Sprint Relay was Sunday morning. Miha and I left the hotel at 5:30 and were off and running.

Skis were zero tested, base gliders were tested, and cover layers dialed-in. Our skis today were super. Vesna, a choosy skier, said "The skis were perfect today!"



Working as a coach on the course (in red).

For the athletes, it was mixed. Vesna was very strong and was in her element – she's one of the best skate sprinters, among the top 15. Katja was not having a good day, and after a couple of strong laps, the wheels came off and she lost quite a bit of time. The sprint relay demands two strong skiers, and it just wasn't going to make it on one strong pair of legs.

After the racing is done, the sober work of packing begins. All the skis need travel wax (a low fluoro, medium-cold glider). All the tools get wrapped and packed tightly so they don't rattle around and break everything. The tables get packed. The wax is sorted, cleaned up, and packed. Ski bags are stuffed with extra gear. Lots of work is done to make sure that everything is taped, strapped, tied, or wrapped to make sure it's all secure and not-too-likely to suffer from shake-and-break problems.

There's a sober, almost glum feeling, through the team and staff. Results have been less than hoped for, and ahead lay a long journey home. For the Slovenian crew it would be nearly two days of travel; for me just 8 hours.

After a quick shower, and a warm good-bye to all, I was back in the car. Eight hours of driving, and I was back home. *Nima problema, šef.*



Stone Grind Your Skis!

Skis are subject to damage every time you ski on them or wax them, or just leave them sitting around. Abrasive skiing conditions, heat from wax irons, and exposure to air all degrade your ski bases. The performance of your skis is greatly affected by the condition of the P-Tex and the surface condition of your skis.

If your skis have base damage, they can be improved with a fresh grind. Any of these symptoms can be remedied with a new base finish from Nordic Ultratune:

- *Skis just aren't fast as they used to be...*
- *Surface scratches*
- *Skis won't hold wax*
- *Over-heated, oxidized, dried out*
- *No structure remaining*
- *No longer flat – convex or concave*

In addition, you can choose the base structure that you need – whether it's an all-around structure for your one-and-only pair of skis, or a special purpose grind for specific snow conditions.



The Tazzari Grinder converts depleted p-tex into weapons grade ski bases!

Hotbox Services at Nordic Ultratune

I routinely get emails asking for clarification of our Hotbox services. Here's what we offer:

Hotbox Basic - In our basic Hotbox process, skis are waxed with a warm paraffin and placed in the Hotbox for 90 minutes for thorough wax penetration. **At \$15 it's a bargain.**

Hotbox Deluxe - With the Hotbox Deluxe process, the skis receive an antistatic treatment using a special process, followed by a warm paraffin, then Hotboxed for 3 hours, providing super-saturation. The Hotbox Deluxe is highly recommended for all stone-ground skis, especially if you plan to race very soon after receiving your skis from the grinder.



More on Why to Grind New Skis

Skis intended for specific conditions will need to be structured for the best possible performance. Ultratune can help you choose the best base structures for your needs. Get rid of excuses by getting the skis prepared for top speed, right away.

It certainly true that the p-tex bases on new skis are better than they were in the past. But it's very likely that your new skis have been sitting in a warehouse for the better part of a year. Often new skis have dried-out, oxidized base material. **It's also common for new skis to have a relatively aggressive structure on the base which can be slow for all but wet or icy conditions.** Sometimes new skis have scratches and often brand-new skis aren't perfectly flat.

Naturally, you want fast skis. A grind and hotbox will have them race ready.



Please clean your skis - don't send them looking like this!

NORDIC ULTRATUNE

September 2008 WORK ORDER FORM & PRICE LIST

(Please attach one copy of this form to each pair of skis)

INSTRUCTIONS:

- Please: we must have a fully completed order form to begin work on your skis!
- A personal check or charge card info (Visa/Mastercard) must accompany your skis.
- Remove all wax from skis - there will be a \$5.00 surcharge for removing wax from skis.
- Tie skis together with rubber bands or tape - ski ties will not be returned.
- Fold this form and tape it to your skis. One work order form per pair.

SHIP SKIS TO:

**NORDIC
ULTRATUNE**
134 Riverside Ave
Winthrop, WA 98862

Grinds (all grinds include travel wax):

	Prices in US\$
LJ03 - general purpose "all around" grind; very good on classic skis	\$ 64.00
MVX - universal layered cross-structure for skate skis in "east slope" conditions	\$ 64.00
MVL - general purpose linear grind for classic skis in colder "east slope" conditions	\$ 64.00
615B - fine, layered, interference pattern for skate skis in colder conditions	\$ 76.00
XC01 - for extreme cold conditions; linear grind with a secondary polishing stage	\$ 76.00
XC02 - for cold & dry snow; linear grind with a secondary polishing stage	\$ 76.00
SLC02 - an excellent klister grind for classic skis; a 2-stage compound grind	\$ 76.00
R2.3, R3.3 - for coarse, transformed snow, high humidity - 3-stage compound grind	\$ 88.00

Waxing (add to the above price):

Hot Box Basic - paraffin wax with 90 minute hotbox soak	\$ 15.00
Hot Box Deluxe - anti-static treatment followed by paraffin wax & 3 hour hotbox soak	\$ 25.00

Additional Services (add to the above price):

Binding Installation (specify boot size _____)	\$ 12.00
Ultratune Flex Analysis	\$ 15.00
Rush order and overnight shipping (please call in advance)	\$ 35.00

Subtotal: \$ _____

Washington residents add 7.7% sales tax: \$ _____

Packaging, Shipping & Insurance: \$20.00 first pair, \$10.00 subsequent pairs \$ _____

Total: \$ _____

SHIPPING ADDRESS

SKI INFO

NAME			
ADDRESS			
APT / SUITE			
CITY			
STATE		ZIP	

BRAND			
LAST 4 DIGITS OF SERIAL NUMBER			
SKATE		CLASSIC	

SKIER INFO FOR FLEX ANALYSIS

SKIER HEIGHT		WEIGHT	
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NOTES

DATE			
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CHARGE CARD PAYMENT INFORMATION

NAME ON CARD			
VISA / M.C.		EXP	
SIGNATURE			

