



***Yorkville Sound History
1963 to 1991***

***Published Feb 20, 2002
Written by Mike Holman***

Foreword

People have been hollering or beating or blowing on things for ages, and whatever passes for music at any point in time seems to be louder than last generation's version. Things got very loud through the eighteenth and nineteenth centuries as orchestras grew, sometimes to immense proportions. But then came the nineteen-twenties and jazz. Small bands became de-rigueur and vocalists became strangely less vocal. Fortunately the "electric loudspeaker" had been invented just prior to the twenties as had the amplifier and microphone, hence was born the science of voice amplification, dubbed "public address" by person or persons unknown. So there was some relief for vocalists of the day, but not a great deal. Early PA systems weren't much of an improvement on Rudy Valee's megaphone, and they failed to get much better for the next three decades which flew in the face of improvements ongoing elsewhere - movie theatre sound systems for instance. It would be nearly fifty years before theatre-quality sound made its way to the live music stage.

Rescued from its home on the range by Gibson designer Lloyd Loar, guitar became a regular part of jazz in the nineteen-twenties. The instrument went through a brief growth process with new models getting progressively bigger and louder. But when jazz bands grew into orchestras and guitars could grow no more, they had to be amplified. At first this was done with a microphone and a modified radio, then with Adolph Rickenbacker's magnetic pickups and a guitar amplifier. Thanks to lagging electronic technology, early guitar amps would also struggle to put out enough sound for a long time.

In the mid-nineteen fifties, rock and roll emerged and changed music technology again. Upright bass soon gave way to electric bass which begat the bass amplifier. The electric piano was born and it had to be amplified. Guitar amplifiers developed more power - these were high-voltage times.

I recall watching the Dorsey Brothers TV show one cold evening in January of 1956. Somebody named Alvin or Alvis - couldn't make out the name - gyrated across our little black and white screen, hollering indiscernibly as I and countless other teens in front of countless other little screens watched in astonished bemusement. Eventually some of us picked up a guitar or bass or whatever and hordes of small bands were born. I was in one of them, Pete Traynor in another.

Jack Long was in his mid-twenties when rock & roll happened. A U. of T. music graduate and trumpet/bass player, Jack was already involved in music full-time. He and his wife Carol who plays piano and sings had been working together in nightclubs from Montreal to Hamilton. Now Carol was expecting their first child and it was time for them to settle down. Jack decided to retail musical instruments and that, as they say, is where our story begins.

Mike Holman

HISTORY

1956 - 1958

Jack Long opened a small music retail/teaching operation, J.E.Long Music Co., in 1956. A year later, he and his friend Jack McQuade - now his partner - opened a shop at 803 Yonge Street and named it Long & McQuade Musical Instruments.

Despite Toronto's vast urban sprawl, Yonge is still considered the city's version of "Main Street" and has the distinction of being the world's longest such thoroughfare at around 1,400 kilometers. Back in the fifties, the southern stretch of Yonge was home to most of Toronto's hottest nightclubs and major music stores. Long & McQuade Music was thus a little off the beaten track, up on the east side of Yonge just across from the terminus of Yorkville Avenue and walk-in trade was somewhat limited at first, but that wouldn't last.

While Jack McQuade concentrated on selling and playing drums, Jack Long shouldered the role of general marketer. One of his ideas was to stock a good selection of high-quality electric guitars and amplifiers, something the more established competition was slow to do. But then they were also slow reacting to the huge youth market that was springing up. Instead they stocked a majority of cheaper guitars and amps "for the kids" and kept a minimal stock of good stuff locked behind glass or adorned with Do Not Touch signs, presumably awaiting grown-ups bent on forsaking the mortgage payment in favor of a Les Paul.

Jack's abiding interest in young people - he and Carol have six children - would continue to guide his marketing approaches right up to the present. Back in the fifties when other music stores were cold-shouldering anyone under the age of twenty-one, Long & McQuade were spoiling them. This tended to leave youthful customers babbling about the place to anyone who'd listen then dragging them there to show it off. No wonder, Jack was like Santa. He'd even lend brand new, high-quality guitars and amps to aspiring musicians for try-outs - at home (no Hands Off signs here). Of course he also loaned things to friends who might be in a spot and needed the temporary use of something, so good will was being spread around evenly - just not very profitably.

1958 - 1963

Two years had passed and both Jacks were still playing at night, Long on trumpet or occasionally bass, McQuade on drums. Enjoyment aside, playing put food on their tables and roofs over their heads since whatever the store earned was going back into the business. Consequently Jack Long often found himself casting about for cash-flow boosters, one of which was the idea of charging a few dollars for lending things out. The amounts would have to be small enough not to offend customers, but anything would help, and help it did. Jack had inadvertently sewn the seeds of Canada's first music equipment rental operation. In later years it would grow to mammoth proportions and affect the future of much more than this one operation, but for now things went slowly.

Jack found himself frequently covering for Jack McQuade whose hectic playing career was now keeping him out of the store for much of the workday. This meant the good Mr. Long was putting in ten to twelve hours at the store and playing until late at night six days a week. And when the twins, Jon & Cathy arrived, he found himself getting home from the gig in time to help with the 2:30 AM feedings. Ah, parenthood.

All in all, life had become a serious grind for Jack Long. Things would have been a little more bearable if the store were paying off, but sadly it remained a profitless effort sponge. Tired and discouraged, Jack finally sold out his interest in 1960, hired a helper for Jack McQuade, a drummer named Fred Theriault, and left for a life of comparative normality in the real estate business.

Our story might end here but for the fact that Jack wound up back in the store regularly and in time concluded that working there would be more enjoyable than selling real estate if he could actually get paid for it. After a year or so he'd managed to save up some money and could buy back his portion of the business if a suitable financial arrangement were made. It was and thereafter Jack Long was back to stay.

Rentals had continued their gradual growth in Jack's absence with amplifiers proving to be among the most popular items. In many cases, young guitar and bass players were blowing their meager bundles on instruments leaving amplification as an afterthought. Then all they could afford was a toaster-sized squawkbox suitable for practicing but not much more, so when they finally emerged from the basement or garage to play that all-important first gig, the kids were making a bee-line for Long & McQuade to rent decent amps.

Reportedly the competition were becoming convinced that L&M was about to go out of business - "How can kids be trusted?". But young musicians turned out to be very reliable renters. Many older guitarists and bassists gravitated to amp rentals as well, thus Long & McQuade's amplifier inventory was constantly becoming more substantial. Despite that, customers were sometimes being turned away because there was nothing left to rent, at least nothing that worked. Death, taxes and repairs, it seemed, were inevitable.

The store's repairs initially went to an outside shop, then in 1962, Jack was approached by a would-be serviceman who wanted to rent space at the back of the store to fix TV's, radios, etc. for residents of the posh Rosedale area nearby. He also agreed to help out with the store's non-functioning inventory as much as possible, although instrument amps were not really where he was grounded. Jack agreed and the arrangement continued for the next year or so. Although it soon became clear that an in-store repairman seemed ideal in principle, the man in question was having problems keeping up as dead amps and speakers began forming mute pyramids outside his room.

1963

Pete Traynor was a Long & McQuade customer in his early twenties. The son of an electrical engineer, Pete had been repairing amps for his friends and playing bass in local bands since highschool. He would hang around the store for hours, like many young musicians, and frequently mentioned to Jack that he could do a good job of fixing amps if given a chance, a claim which Jack recalled when the repairman eventually sought less frustrating pastures elsewhere.

It was agreed that Pete would perform the store's repairs on a piecework basis whenever he had time and Jack settled back, prepared to hold impatient customers at bay a little longer. But to everyone's astonishment, nearly the whole mess - several month's backlog - was cleaned up in very short order. Pete continued to repair things part time for a couple of weeks, then he was hired full-time.

Pete Traynor proved to be a frenetic worker with little regard for "factory original" parts. More accurately he lacked the patience to wait for them. But so did the customers. If something wouldn't work with off-the-shelf components he'd modify it so that it did, a trick which required more than the average amount of technical acumen. But occasionally a power transformer had to be ordered from the manufacturer resulting in a long-term wait. This left Pete grumbling and vowing that if he were ever to design an amplifier, his power transformer would be virtually bullet-proof.

Pete was developing a growing list of retail parts suppliers - Alpha Arakon, Electrosonic, etc. - and eventually he even found a speaker manufacturer, Marsland Engineering, who would sell to him. It was seldom difficult for Pete to obtain speakers, parts, tools, test equipment, etc.; he was spending Jack Long's money and Jack had trouble saying no.

In time Toronto began awakening to the fact that there was someone at Long & McQuade with the ability to fix almost anything. High-calibre audio/video repairmen were around back then, but few knew or cared enough about instrument amps to work any wonders. By comparison, Pete Traynor seemed like Merlin with a soldering iron. As if to further such notions, he took on the added task of modifying things. In this pre-fuzz-box, pre-master-volume-control era, he could make guitar amps provide the distortion and sustain popularized by ex-band-mate Robbie Robertson. Pete even sawed someone's Hammond L100 organ in half to make it portable (Ray Harrison - that was his solo on Del Shannon's "Runaway"). Such legendary stuff, along the magnetic pull of Long & McQuade, drew even more customers to the little shop on Yonge Street.

A few weeks after Pete started working at the store full time, a customer requested that he design and build a pair of portable PA speakers for him. This appears to have prompted one of those 'lightbulb' moments. Incredibly, no-one seemed to be building portable speakers for public address, nor portable amplifiers, nor anything else. There were commercial PA amps which 'could' be adopted for portable systems, but they were clumsy to set up and offered only one or two mic inputs, and who cares - there were no speakers to use with them anyway. Meanwhile, the systems built into most playing venues were awful antiques that squealed and distorted or didn't work at all.

The dreaded no-PA syndrome may have spared dance bands fits of grief; their music is generally around ninety per-cent instrumental. But rock & roll is about ninety per-cent vocal and that's what most of the store's customers were playing. So what did rock & roll bands do when there was no PA? Too often they played the handful of instrumentals they knew, over and over until the audience threatened violence. Then they packed up and fled into the night, often penniless. Obviously portable PA could solve some nagging problems.

After puzzling over possible designs, Pete took a page from one of his reference books and conjured up something called the "sound column" based on a principle developed by RCA in the mid nineteen-thirties. These first columns each contained six eight-inch speakers and two ten-inch speakers which made them better than six feet tall, hence they could get sound out to the back of a hall or club even from a low stage. As well, that vertical speaker alignment promised to spread sound over a large area.

The finished columns were covered with dark purple material to match the band's suits and placed in a corner of the store, awaiting the group's return from a tour. That's when the customer enquiries started. People would ask, "What are those things?" and Jack would reply, "Sound columns. You know - portable PA speakers". This

prompted reactions generally typified by a brief pause (while their lightbulbs turned on) followed by, "Do you have any more?".

Pete soon found himself building columns whenever he had a free night. These ones contained six eight-inch speakers, no tens, that just made them too tall for station wagons (Econoline-style vans were rare 1963). They were covered in black vinyl - more durable and subtle than purple cloth - had metal corner pieces, quarter-inch jacks for quick connections, strap handles and steel glides to stand on. Best of all, Pete had located a metal fabricator to cast script-style "Traynor" logos out of aluminum (ah, instant immortality). The only accessory needed was a pair of speaker wires, 30 ft. long with a 1/4-inch plug at one end and bare wires at the other so that it could be connected to the screw terminals on a commercial PA amp. Pete made these too and called them "column lines".

Now Pete wanted to design a bass amp. They were always out of stock for rentals and he'd roughly calculated that, even paying retail prices for parts and raw materials plus whatever a machine shop would charge to make the chassis, he could still build the amp and price it reasonably, with enough margin left to cover operating costs including labor. Jack agreed to fund the project and further asked Pete if he could build a few rather than just one. Pete agreed.

Initially dubbed "Dynabass" (40 watts sine-wave rms @ 8 Ohms) and later to be re-named "Bass Master", this amplifier "head" (no speakers built in - the kind with speakers are called "combos") was designed with both bass and guitar players in mind. There were two pairs of input jacks, each with its own volume control and sound with channel two being brighter for guitar. An internal wiring gimmick provided a little extra distortion for guitar players if they patched a short cable between one of the jacks in each channel then turned up both volume controls. There were also bass, treble, low and high (midrange & treble) "expander" controls.

Perhaps reflecting on the oath he'd grumbled earlier, Pete included a third transformer in the Dynabass to act as a buffer for the power transformer. This he deemed important because tube amplifiers will self-destruct if you neglect to plug in a speaker or if your speaker goes dead. Usually the musician switches off the amp as soon as he/she notices there is no sound hence the damage is hopefully limited to the output tube sockets and possibly the output transformer, components which can generally be obtained from retail electronic supply shops. But if the amp doesn't get shut off in time, the power transformer is next to go and that's always a custom-made part available only from the amp manufacturer. Pete's buffer transformer would sacrifice itself to save the power transformer which is bigger, more costly and much harder to get. Replacing the buffer transformer was still an expensive proposition, but a repairman had the option of simply wiring around the burned out component which would cost very little, albeit the safety margin would be removed.

**About Traynor amplifier power ratings. Distortion analyzers were rare and expensive in the early 1960s so Pete's power test method utilized basic repairman's gear - a dummy load (a big resistor), an oscilloscope, an oscillator and a voltmeter. The oscillator was set at 1kHz sine wave and plugged into the amp's input while the amp's speaker output jack was connected to the other three things. The volume was turned up until the sine waves on the oscilloscope evidenced some squaring-off at the tops and bottoms then it was turned back down a little until the wave forms rounded off again. Finally the output voltage was measured and converted into watts mathematically.*

When you encounter "rms" after amplifier power ratings herein, it is power measured under these test conditions. Of course amps put out considerably more power than this when they're turned up full and roaring with distortion, in some cases nearly twice as much. But those ratings don't count to bass players who need to know the maximum clean output only. It's interesting to note that this conservative sine-wave criterion was adopted for bass players, by a bass player.

Competitors were often quite liberal with their power ratings. Some used fully distorted maximum Watt ratings - double the sine wave rating - and called them "rms" which is perfectly legal since "rms" (root mean square) has no bearing on distortion. Others used "peak" ratings which are even less meaningful. But Pete couldn't do this. Having established a "clean" criterion for bass amp power ratings, he naturally later carried it into PA and guitar amp power ratings. Why not use two types of ratings, a clean one for bass amps and PA, and a "dirty" one for guitar amps? Because Yorkville could end up with "90-watt" guitar amps that were clearly no more powerful than "45-watt" bass amps - a major ratings jumble, especially considering that guitar players were using Bass Masters

almost from day one. So, not surprisingly, Traynor literature contained no power specifications well into the 1970s. And when the numbers did finally appear in literature, for years thereafter people would say, "There are Watts and then there are 'Traynor Watts,'" implying that the Traynor Watts were somehow bigger. (But now you know the rest of the story.)

Today, thanks to the Audio Engineering Society's hard-fought efforts, amplifier power ratings have been standardized and are much more reliable.

About Traynor **speaker** power ratings:

Up until the 1980's, Yorkville's method for determining a speaker's maximum power capacity involved the use of an oscillator, an oscilloscope, a voltmeter and an amplifier. The oscillator would be set for sine wave and plugged into an amplifier's input, then the other things plus the speaker to be tested, in its intended enclosure, would be connected to the amp's output. The oscillator would be set on slow sweep from 20Hz to 20kHz and the amp would be turned up to the first power level which was whatever the manufacturer claimed. If they said it handled 50 Watts rms, the amp would be turned up until the voltmeter read the equivalent of 50 Watts in volts depending on the rated impedance of the speaker. The scope would then be checked to make sure the amp wasn't clipping and the whole works would be left going bwoooooeeep-bwoooooeeep-bwoooooeeep for a few hours. If the speaker survived, the power would be increased and the process repeated until the speaker finally burned out. The last safe power level would then be chosen as Yorkville's "rms" rating for that cabinet.

Of course, if the oscillator sweep rate was sped up (bwweepbwweepbwweep) the speaker would be able to survive higher power levels because it spent less time at any particular frequency. Later, when pink noise (sounds like Niagara Falls) was invented and used as a signal source, speakers could handle even more power. As a result there was a long period wherein nobody was really sure how much power a given speaker could take with actual music as the source because there were so many different test methods all netting different results (and what's worse, the nature of the music itself can kill a speaker). Here again Yorkville opted to avoid the problem by not publishing power specs. That too continued into the seventies.

Today, thanks in part to the advent of CDs with their lifelike dynamic range, there are "program" (pgm) power test procedures which represent the speaker's ability to survive power levels under a wide range of real music conditions. Of course even these procedures are open to interpretation depending on the type of music used. For example, due to its wide swings in dynamic range, classical music is far less likely to damage speakers than compressed, heavy rock which keeps the speakers almost constantly at the same operating levels. Here, Yorkville has again chosen to be conservative by using very dense, compressed rock CDs as well as pink noise. Yorkville speaker power specifications have been "pgm" since the mid-1980's.

.....

Six Dynabass heads were completed in October and put with bass cabinets which Pete had also built, each containing a single fifteen-inch speaker. As legend has it, everything was immediately sold, not rented, leaving rentals in the same fix. Another legend indicates that the speakers were over-powered by the amps, blew out quickly and the whole works came back for repair (both rumors are disputed). In any case, everything seems to have ended happily because Pete needed to build more right away and that's how it went for the next while - small batches every few weeks.

Between columns, bass amps and cabinets, building things had become more and more demanding on Pete's time. A helper, Pete's pal Tex Taylor, had been working alongside him since September '63 and a third man, Don Fisher, was added in October at which time it occurred to Pete that this operation might be worth turning into a company. He offered to put up one thousand dollars of his own money if Jack Long would come in with him. Jack agreed and a partnership was formed with Pete owning one third and Jack the other two.

Before year end 1963, a batch of twenty-four Dynabass amps was produced. These had a new feature, a small black-on-copper back plate bearing a serial number from "0001" to "0024" (such optimism), also the electrical ratings and the words "Bass Amp, mfg. by YORKVILLE SOUND, Toronto, Canada".

Voila - the principles had agreed on a company name and, just like that, Yorkville Sound was born. Amazing! Only six months had passed.

To set the record straight with some self-acclaimed Traynor historians, it's worth noting that at no time was there ever a "Traynor Amp Co.," or "Traynor Sound" or whatever. The operation went from a repairman building things for customers in his spare time, right to Yorkville Sound, all during this brief 6-month period in 1963 and all within the confines of Long & McQuade Music. And, once again, it was Pete's idea to form Yorkville Sound with Jack agreeing to put up the bulk of cash - as he'd been doing all along.

1964

The little back repair room had become horribly cramped by roughly mid-1964, forcing the operation to relocate in the store's attic. A few more employees were added and so Jack asked Fred Theriault who had a keen eye for details, to manage the little operation and perhaps buffer the occasional differences he and Pete were having. Never one to take challenges lightly, Fred ended up managing Yorkville Sound's day-to-day operations through several years of hectic early growth. Finally, Pete was free to concentrate on his first love, tinkering and designing things.

"Dynabass" became "Bass Master" in 1964, and on the amp's back plate, "Bass Amp" was replaced by model designation "YBA-1" - Yorkville Bass Amp #1. About this time power was increased slightly to 45 Watts @ 8 Ohms. 12AX7 preamp tubes were mated at first with 7027A output tubes, but later 6CA7's were standardized.

Columns now had back plates too. They read "Model: YSC-1" (Yorkville Sound Column #1) and bore 4-digit serial numbers. Ratings were 150 Watts, 5.3 Ohms. Columns, it turns out, were about to become the foundation of the 1960s PA revolution.

Later in 1964 the YBA-1's cube-shaped bass cabinet officially became the YS-15 (Yorkville single-fifteen, 50 Watts rms, 8 Ohms) and some new products were introduced including the YBA-2 "Bass Mate" combo (20 Watts rms). Fundamentally this was the cube-shaped YS-15 cabinet but with a rear-mounted amplifier chassis featuring volume bass and treble controls and a square opening in the back where the power cord could be stashed.

Also bowing in this year were the YSC-2 column (48 Watts rms, 8 Ohms) with four twelve-inch speakers for customers who wanted more bass, and the YSC-3 (100 Watts rms, 8 Ohms - yes, twice the power capacity of the bigger YSC-2) with just four of the YSC-1's eight-inch speakers, to please customers who said that the YSC-1 and -2 were too long to fit in their cars. As well, two "Hi Tone", high-powered, twin-twelve guitar amps (no known specifications) were test-built. A sloping top to make it butt-proof (smokes just rolled off) and drink-proof (so did drinks) failed to help the Hi Tone's self-destructive electronic design and it never went into production. Perhaps discouraged by this setback, Pete did not attempt to design anything similar for several years.

1965

On January 1st, 1965, Jack Long and Pete Traynor officially became President, Vice President and sole shareholders of "Yorkville Sound Limited.". Now the little operation settled into its new role as a real company complete with invoices on which the product chronology herein is partially based, and soon a mandate to move out of Long & McQuade's cramped attic. This was accomplished later in the year when the company relocated to the second floor of an elderly industrial building in Toronto at 431 Dundas Street East near Parliament Street. The facility had room for added people and machines plus a design lab which would later house a small but growing technical staff. There was even office space for Jack Long whose direct guidance was needed more regularly as the company grew.

Jack McQuade opted out of the store to devote his full time to playing drums in 1965. For business and personal reasons, Jack Long decided not to change the store name.

Early that year, Jack was approached by a travelling salesman named Murray Cooney who thought that other music stores might be interested in buying Yorkville Sound's Traynor products. With the major U.S and British competition around at the time - Fender, Ampeg, Gibson, Vox, et al - it didn't seem likely that there would be much interest in an obscure home-grown line. Still, Jack agreed to pay Murray a commission on whatever business he could dig up and that's how it was left.

Moving the factory may have blunted Pete Traynor's creative thrust temporarily. Only three new products debuted in 1965. The first was another guitar amp, the YGA-1, "Signature" head (45 Watts rms @ 8 Ohms). Here, the trusty YBA-1's electronics were adopted with its Low and High Range Expander tone controls replaced by Tremolo Speed and Depth controls. The Signature did not have reverb, ergo an unusual companion product was developed, the YHI-1, "Amp Mate Reverb" comprising a single twelve-inch guitar speaker and spring reverb unit all in one box. It was designed to be used with a regular guitar cabinet as the footswitch cut the whole unit in and out including the speaker. The YT-12, (50 Watts rms, 16 Ohms) was introduced to go with the YHI-1. This was a twin-twelve guitar cabinet featuring Phillips "Norelco" speakers and was a mate to either the YGA-1 or YBA-1. The speakers each featured a small center cone for added high frequency response (technically a "parasitic radiator") and a cylindrical alnico magnet. Luscious-sounding, the YT-12 lived on for several years while the Signature head remained in production until 1969. The curious YHI-1 survived only until late 1966 when the TR-1 reverb was introduced.

1966

*New product design got back on track in '66. The YT-15 (100 Watts rms, 16 Ohms), a twin-fifteen bass enclosure designed for use with the YBA-1, had been built randomly earlier (like other things), but now went into regular production. This also applied to the YS-15L (100 Watts rms, 8 Ohms), a *Lansing D-130-equipped version of the YS-15, also the YTL-15 (200 Watts rms, 16 Ohms), dual Lansing-equipped cabinet.*

**Shortly afterwards Lansing changed their name to JBL and it appears that the D140 was subbed in to replace the D130s which were underpowered and blew in the YS-15L.*

The YSC-4 (48 Watts rms, 8 Ohms) made its appearance in 1966. This square, four-twelve PA cabinet utilized the YSC-2's 12-inch speakers and went up on a robust stand making it a "first" for Yorkville and apparently in North America - no other stand-mounted portable speakers were available at the time. The YSC-4 also came without a stand adaptor as the YSC-4A, a guitar cabinet, two of which could be stacked up for use with the YGA-1 or YBA-1 (those twelves sounded nice but could only handle 12 Watts rms apiece, hence two YSC-4As were required to handle the amp's maximum potential output of roughly 80 Watts).

The YF-10 (100 Watts rms, 8 Ohms) four-ten bass cabinet bowed in with the distinction of being suitable for either bass or guitar. Also new in 1966 were the TR-1 tube reverb unit which replaced the YHI-1 Amp Mate Reverb speaker, also the YGA-1A, (45 watts rms @ 8 ohms) a combo version of the Signature head with a 15-inch guitar speaker built in, and the YSC-5 (100 Watts rms, 8 Ohms), another stand-mounted PA enclosure, this one containing a single 12-inch Lansing D120. The YSC-5 further had the distinction of being one of the first internally horn-loaded reflex enclosures on the market.

The YVM-1 Voice Master (45 Watts rms @ 4 or 8 Ohms) appeared in 1966. Another "first", the Voice Master was a tube-type, four-channel portable PA amplifier roughly based on the YBA-1. This cornerstone product inspired a whole generation of mixer/amplifiers referred to as "PA Heads". It featured four channel volume controls, a master volume control, master bass, middle and treble controls and a pair of reverb send and return jacks for patching the TR-1. The competition was quick to respond. Even a popular microphone manufacturer was inspired to introduce a portable PA system complete with column-type speakers and with the word "Master" in its title.

1967

No need to go deeply into financing, but it's worth mentioning that L&M and Yorkville worked from a bank loan and still do. Like the operating loans of most companies that are growing, they need to be increased occasionally in order to obtain more of this and/or a new one of those and/or to hire additional staff, etc. The process of obtaining more money can be dicey when a company is growing as fast as these two were, especially Yorkville. It seems hard to believe, but banks get nervous about rapid growth and Jack had run into a brick wall trying to obtain additional funding. Thankfully this was resolved by a beneficent bank manager in 1967, saving Jack the necessity of signing over 25% of the two companies to a prospective lender who owned a major chain of burger joints (whew!). Now there would be ample funds available - for the time being - and expansion was becoming more of a necessity every day.

Jack decided to investigate establishing a second L&M store in 1967, this one in booming, bustling Vancouver. Two Traynor dealers out there had run into trouble leaving Yorkville's products with no retail representation in the area. As well, Jack could see that an expanding market base was going to be important to both companies. Pat Coffey, a key salesman at Long & McQuade, was an ideal candidate to go there, scout it out, then run the store if things looked good. Pat reported back favourably then returned to Vancouver with wife Judy and son Brett to begin the process of setting up the store in their new environment.

Less than two years after growing out of Long & McQuade's attic, Yorkville had now grown out of 431 Dundas St. East. Mid-1967 the company moved several blocks down the road to number 744 Dundas St. East, a two-story building perched by the Don Valley. Yorkville occupied all of the second floor plus the north and east sections of the first floor (the building had a center courtyard and so was roughly U-shaped). Overall floorspace was sufficient to allow for an expanded woodshop, an all-new machine shop (no more getting chassis built outside), greater lab space and even a sound room which could double as a recording studio. As well, Jack decided to hire a production manager so that Fred Theriault could concentrate more on sales management. He also had an office built there for himself. Henceforth Jack would make Yorkville his home base and visit the store rather than vice-versa.

Murray Cooney's efforts had resulted in a number of Canadian music stores buying Traynor products which made the opportunity to take on additional salesmen more attractive. This happened in 1967 when US-based Peter Fremd added the US eastern seaboard down to Maryland to the market base. Murray had developed Traynor dealers in the western parts of New England plus New York, and the northern parts of Michigan, Ohio & Illinois the previous year so Yorkville's products were already making their way across the border as early as 1966.

Laub Warehouse in Buffalo was contracted in 1967 to facilitate US distribution. This was an operation where you paid for a block of floorspace by the square foot and their employees would both receive and ship for you. Yorkville would ship in quantity to Laub then US orders could be called in there directly by the dealers. Laub employees would answer the phone in the Yorkville area "Yorkville Sound" and take the orders. Shipping followed a quick credit check and it all worked quite nicely. In future, Yorkville would rent a larger block of space there and hire two employees to work in it, one for repair service.

New products for '67 included the MX-1 which was unique in two ways; it was a very small, 4-channel mic mixer - such things were quite rare then - and it was powered by a 9-volt battery. There were four 1/4" inputs each with a volume control, also an output jack and a master volume control which doubled as an on-off switch. The MX-1 had another distinction; it was Pete Traynor's first solid-state product (it contained one transistor - a humble beginning).

The little YBA-2A Bass Mate head (24 Watts rms @ 8 Ohms) was added so that bassists wishing a lightweight, 2-piece outfit rather than a combo amp could be satisfied. It was usually coupled with the YS-15. Controls included volume, bass and treble. Going the opposite way size-wise, the YBA-3 "Custom Special" was a "first" in terms of power. At 130 watts sine-wave rms @ 4 Ohms (potentially over 200 Watts full-out), this head was the most powerful bass amp then on the North American market. It also contained a fan for the four 6CA7 output tubes and a large bolt which went through a hole in a round steel plate in the bottom of the box. The YC-810 cabinet had a similar plate on top which was tapped to take the bolt. YBA-3 controls included volume, bass, treble, low and high (mid) range expanders and there were bass and treble boost switches. A master volume control was added in 1971 making the Custom Special a really formidable guitar head. The colossal YC-810 "Big B" speaker enclosure,

(200 Watts rms, 4 Ohms) was another "first" and was the YBA-3's bass cabinet. In this case it was the number of speakers - eight tens - which distinguished the product. Initially, the YC-810 came mounted on a tube-steel swivel dolly with massive wing bolts on the sides so that the cabinet could be pivoted up or down (hence the bolt in the YBA-3 to hold it in place). Later this was replaced by a regular dolly and the hold-down bolt arrangement was removed. The YR-412 "Rogue" guitar cabinet was also for use with the YBA-3. Initially, it featured two high-frequency horns as well as four robust twelves. Later the horns were dropped.

The 20-watt YGM-1 "Guitar Mate" (20 Watts rms @ 8 Ohms) filled the need for a compact combo, but more significantly it represented a bona-fide guitar amp (the Signature was the only other guitar amp in production at the time and it was actually a modified Bass Master). The YGM-1 featured volume, bass and treble controls as well as reverb, tremolo and a 12-inch speaker. Later the YGM-2 Guitar Mate (25 Watts rms @ 8 Ohms) came out. This was virtually the same amp as the YGM-1 minus reverb to reduce the price, but with 5 watts more power. It too appeared in 1967.

A unique "first" proved to be farthest ahead of its time in 1967. The LS-1 lighting system featured two sets of four, differently coloured, swivel-mounted floodlamps attached to crossbars which went up on speaker stands. A console-style switchboard controlled the system simply by turning the power on or off to the various bulbs. Primitive perhaps, but it worked reliably and there would not be any club size lighting systems on the market for years to come.

Then there was the TRC-2A "Roto-Master" - basically the top part of an organ cabinet with a spinning high-frequency horn inside. This could be used with a guitar combo or stack in place of the delicate Leslie cabinets previously in use.

1968

On September first 1968, Long and McQuade Music opened its doors on Vancouver's Granville Street with three employees including manager Pat Coffee. Today there's still an L&M store on Granville, the second largest of all the L&M stores and with considerably more than three employees. Things have gone well - the store is at more of an uptown address these days, and Pat Coffey still runs it.

Product-wise, someone must have pointed out to Pete Traynor that there was a rather large gap in power between the 45 Watt YBA-1 and the 130 Watt YBA-3. In any case, the YBA-1A "Bass Master Mark II" (90 Watts rms @ 4 Ohms) was ushered in during 1968. Looking identical to the YBA-1 except for its name and a telltale fan built into one end, the Mark II delivered around double the YBA-1's power from the same two 6CA7 output tubes, a fact which still leaves vintage amp collectors dumbfounded. Soon after its introduction the YBA-1A encountered growing use by guitar players.

The YC-610 (150 Watts rms, 5.3 Ohms) had six of the ten-inch speakers from the YC-810. It could be used for bass or guitar and was developed for the YBA-1A. And so was the YB-18 (apx. 80 Watts rms, 8 Ohms), a compact cube-shaped cabinet containing an 18-inch Goodman speaker, and the YN-412 guitar cabinet (100 Watts rms, 8 Ohms). Although the YN-412 came loaded with a quartet of the gorgeous-sounding Phillips Norelco twelves, it had a more punchy midrange tone than the YT-12.

A new reverb unit made its debut in 1968 - the TR-2. The TR-2 was solid-state and worked equally well for PA or guitar, unlike the tube-type TR-1 which was designed for use with the YVM-1 and was not suitable for direct guitar plug-in.

There was great demand for a bona-fide guitar amp in the 45-Watt range. Voila, the YSR-1, Custom Reverb head (45 Watts rms @ 8 Ohms). It featured the same dual sets of inputs and volume controls as the YBA-1 plus controls for bass, treble, reverb and tremolo speed and intensity. Interestingly, a year after its introduction, a YSR-1 was ordered by a shop in California who needed one desperately for a customer. When told that the amps were out of stock the owner said "But it's for Elvis. He's opening in Las Vegas in two weeks". Shortly afterwards, a lone YSR-1 came down the production line amid excited whispers from the staff. It was later rumoured that when Elvis opened there were a number of Traynor products onstage.

"Psychedelia" - a word which struck joy into the hearts of drug-culture fans - had found its way to the rock stage. But you couldn't put on a really psychedelic show without the right lighting. A strobe was essential. Thus Long & McQuade customers brought pressure to bear, Yorkville responded and voila, the YSM-1 Strobe Master. This was a smallish black box with a clear plastic screen on one side, a strobe bulb and reflector inside and a small control panel on the left side containing the speed control, footswitch jack and on/off switch. Little did Yorkville designers recall this (less than) landmark model number when naming a studio monitor twenty-three years later. Ah well, the stobe fad was soon "up in smoke" and with it went the Strobe Master.

1969

This was the year Woodstock happened - a musi-cultural explosion with aftershocks that shook war-weary North America to its roots. In its wake, things changed in the music business. Jimi Hendrix, Joe Cocker and Janis Joplin suddenly became household names. Comedians Cheech and Chong became overnight recording stars as did sitarist Ravi Shankar and numerous equally obscure acts who might otherwise have remained unknowns.

On the music supply front, Fender Stratocaster guitars suddenly refused to stay on music store shelves, Jim Marshall's guitar amp stacks began chugging regularly across the Atlantic from England and Pete Traynor began getting the strangest phone calls. Promoters and musicians alike wanted to put on Woodstock-style concerts and Pete was the only one they knew with any chance of providing the sound.

Some "chance" - Pete was a designer, not a live sound engineer. And why all the fuss? After all Elvis, the Beatles and countless other major acts had performed without "big PA", so what was the difference now? The difference was that Elvis and the Beatles got drowned out by screaming fans and what little you could hear was squawky with some instruments, especially bass, being totally inaudible. At Woodstock, dozens of microphones, a multi-channel mixing console, numerous amplifiers and piles of movie theatre speaker systems made everything audible. The basic sound quality was infinitely better than anyone had ever heard from a PA system. So, like it or not, live sound was a whole new ball game and Pete Traynor, it seemed, had been picked as the starting pitcher.

There was good news and bad news about Pete getting into this field in 1969. While it promised to provide a tremendous showcase for Yorkville's products, Pete knew virtually nothing about contract sound, neither the contract part nor the technicalities. Nor was there a body of knowledge for him to draw upon - big PA had just been born, who knew? Of course his product design efforts were needed at Yorkville and this endeavour was bound to interfere with that process so, on the surface of it, the cons appeared to outnumber the pros here. But Pete Traynor had a tendency to tackle anything that resembled a larger-than-life challenge and this one further promised a certain amount of reflected spotlight. It must all have seemed quite irresistible.

In later years, Pete stated that promoters were offering him tens of thousands of dollars per show. And if that news hadn't swayed Jack Long sufficiently, Pete claimed that he even offered to guarantee no losses out of his own pocket (which Jack would have suspected was empty thanks to a big car, a big motorcycle and a cabin cruiser). But there were certain positives to the whole thing and Jack still had trouble saying no, so the project progressed.

It made sense for Yorkville to build Pete's system. Recording studio mixers were terribly expensive and delicate, often having to be aligned after they were moved, a process which could take several hours if not days. Studio-style amplifiers of the day were prone to breakdown if not treated with kid gloves and theatre speaker systems weren't really designed for travelling the countryside. On the other hand, it appeared that Yorkville only needed to engineer three things for the system; a power amplifier, a mixer and a horn-loaded bass bin. The new YSC-6 (see below) would suffice as a midrange cabinet loaded with JBL speakers and there would be no trouble hunting down some big high-frequency horns and compression drivers. Pete said he could design the power amp while lab chief, Paul Hallam, worked on the bass bin. Only the mixer remained a problem. Pete's solid-state design experience was still a bit limited for something this big, but he knew a designer who could handle it.

Brian Lord, an independant electronics designer, would have seemed like a rather costly solution if he were only going to design Pete's big mixer and nothing else. It would be much better if he could also design a small mixer which, along with Pete's power amp, would be the basis of a system for the shops to sell. Brian complied and designed the MX-8 - a mono, 8-channel, non-powered mixer in a black case with a removable hinged lid. It featured volume, bass, treble and reverb controls on each channel plus masters for volume, "monitor" volume (just a parallel main mix master with its own output jack), reverb and reverb tone. Pete's power amplifier, the YPM-1 (100 Watts rms at 4 Ohms) was also mono and, like the MX-8, came in a box with a removable hinged lid. It featured two parallel input jacks, two parallel output jacks and a volume control. The MX-8/YPM-1 combination represented another "first" for Yorkville - a 100 Watt, 8 channel club PA.

The bass bin too was designed in fairly short order - sound jobs had already been confirmed. This was a large folded-horn enclosure (a.k.a. "W bin") designed to take the YB-18's 18-inch Goodman speaker. Designated YB-18A (80 Watts rms, 8 Ohms), it could be sold or rented as a high-powered bass cabinet for use with the YBA-1A

or in pairs with the YBA-3. Later on the Goodman was replaced by a heftier Celestion speaker. Eventually the YB-18A was adopted by sound men putting their own big PA's together.

Those dual-cone Norelco twelves used in the YT-12 and YF-12 guitar cabinets were so versatile they ended up in the YSC-6 (50 Watts rms, 16 Ohms), a large twin-twelve PA cabinet featuring the YSC-5's horn-loaded reflex format. As mentioned earlier, YSC-6s were loaded with JBL speakers for Pete's system.

Design work proceeded on a 16-channel mixer for Pete, but it would not be finished in time. His first job - the "Strawberry Fields" festival at MOSPORT race track - had to be mixed with three MX-8's stuffed into a long wooden box. They were inter-connected to work as much like one mixer as possible and the reverb pans were removed so that the channel reverb controls could function as monitor level controls with the reverb footswitch jacks connected to YPM-1s driving the stage monitors (YSC-6s lying on their sides, propped at an angle with bricks, etc.). Eventually Yorkville built Pete some angled "wedge" monitor cabinets - another "first". Finally a big truck was acquired along with scaffolding and even a few sound crew technicians where Yorkville employees were not available. Two of them, Larry McCabe and Dirk Vandersleen, later became full-time Yorkville employees who went on to design products for the company.

By now, Jack must have been wondering what he'd let Yorkville get into. On top of everything else, Pete had instructed Brian Lord to start designing a bigger mixer. Sixteen channels were clearly not going to be enough, twenty-four was now the magic number (meanwhile a completed 16-channel board with pushbuttons that lit up was left to molder). Pete also wanted four main mixdown buses, two monitor buses with pre and post-EQ channel send controls, a solo bus, input phase-reversal buttons (a Yorkville "first", handy for defeating feedback - tape two identical mics together side-by-side, plug them into separate channels then reverse the phase on one of them). There were also separate input attenuation and volume controls on each channel, dual built-in graphic equalizers (another Yorkville "first") and multi-function VU meters. Pete also specified that all input and output connections be duplicated at a large multi-pin connector on the back panel so that he could hook the mixer to the stage junction box with a single, multi-element cable (another Yorkville "first"). Today, PA "snakes" (again, a Yorkville "first") are commonplace, but they're still not quite as sophisticated as this one with its massive Elco connectors and rapid hookup capability.

Compared to recording mixers, the MX-24 lacked slide-type level controls. Pete had insisted on rotary level controls because he believed they would be less prone to fouling and noisy performance. But otherwise the mixer was a PA sound man's dream and so thought other people. Before long, bands began asking if Yorkville could build them a mixer like that. Warnings that it would cost thousands usually went unheeded - they could smell stardom in the air. Naturally the idea was resisted. Pete's mixer had been hand assembled by a small number of people, but in production, the huge boards could tie up Yorkville's manufacturing for weeks meaning thirty-odd other products might not get built. The idea of making everybody do without stock so that a few people could have big mixers didn't sit well with anybody. The MX-24 did not go into production (in 1969, that is).

The little U.S. operation at Laub Warehouse in Buffalo (see 1967) changed its status in 1969. Yorkville had been marketing into the US long enough to possibly incur a surtax since it was a foreign company trading directly into the States. In order to smooth out that situation, Jack formed Yorkville Sound Inc. Now there was an American Yorkville Sound, a fact which would prove to be of great benefit in future.

Pete Traynor obviously had his hands full in the latter half of 1969, so it comes as no surprise that new consumer products were a tad sparse. However a few were developed including the YBA-2B, Bass Mate (25 Watts sine-wave rms @ 8 Ohms), a slimmed-down, closed-back replacement for the cube-shaped YBA-2 with 5 Watts more power and with controls - volume, bass & treble - located on the front rather than at the back. The YGM-3, Guitar Mate (25 Watts rms @ 8 Ohms) added reverb to the YGM-2's extra power and replaced the YGM-1. YGM-3 would soon become Yorkville's most popular guitar amp and remained at the top in unit sales until 1980 when tube amp production ceased.

At the absolute opposite end of the power spectrum was the YBA-3A, Super Custom Special head (250 Watts rms @ 4 Ohms). There is some dispute about its year of introduction; Long & McQuade's Pat Coffey used one before going out to Vancouver in 1968, maybe it was an early prototype. In any case, this amp was another "first" - first to put out over 250 watts sine-wave. Weighing in at roughly 100lbs(!) the YBA-3A looked identical to the YBA-3 except for the name and the type of output tubes. Unable to find audio tubes that would do the job unless used in large numbers (eg. eight 6CA7s) Pete decided on four 6KG6A TV vertical hold valves which looked like overgrown preamp tubes with metal caps. The Super Custom Special was actually capable of putting out over

400 Watts, but no bass or guitar pickups were powerful enough to drive it that hard. The good news was, it was virtually impossible to distort - great for bass players. The bad news was, guitar players generally did not like it and for exactly the same reason - no distortion. There was at least one exception; guitarist Jeff (Skunk) Baxter of the Doobie Brothers had one custom-built with no controls, just an on/off switch. To ensure the safety of the speakers, Super Custom Specials had to be used with two of the mammoth YC-810 or YR-412 cabinets, otherwise the warranty was void.

The YSR-2, Signature Reverb guitar combo (45 Watts rms @ 8 Ohms) was not what you might think. The name implies that it was a Signature amp (see 1965) with reverb added, but this was a totally new design and solid state at that - Pete's first solid state instrument amp. It had four ten-inch speakers and two channels, one with volume bass and treble, the other with those controls plus reverb and tremolo. There was another control as well, another Yorkville "first" in fact - a master volume. However, despite having this rock-essential feature, the YSR-2 was almost incurably clean sounding. Guitarists looked elsewhere and the the YSR-2 was discontinued a year later.

Yorkville dealers wanted a compact, lightweight PA amp as an alternative to the YVM-1. The 4-channel, solid-state YVM-2, Voice Mate (25 Watts rms @ 4 Ohms), was designed by Phil Simone, a technician hired during the lab expansion. Engineer/lab chief Paul Hallam provided advice and approved the final wiring diagrams - this now became standard practise. And finally, something sought-after by certain guitarists was introduced in 1969 - a dual-horn version of the TRC-2A Roto-Master dubbed the TRC-2B. It too behaved like the top part of a Leslie cabinet and rather like a phase shifter, an effect pedal which appeared on the market about that time (oops). A year later both the TRC-2A and 2B were discontinued. Life goes on.

1970

This was the year when everything changed but hardly anything new was introduced. Confused? Well what happened was the external cabinet design went from rounded edges and metal corner pieces to straight edges protected by black and chrome bumper strip material. Strap handles on the larger speaker boxes were replaced by rectangular holes, one on each side of the cabinet, with force-fit metal trim top and bottom. A plastic cup was affixed to the inside of the cabinet to make the hand hole air-tight.

The "Traynor" logo went through change number two this year. Going back to the beginning, the first version - a script-style cast aluminum affair - had been replaced in the mid-1960s by a plastic emblem sometimes referred to as the "rayno" sign. In this case the letters were angled and free-standing, all joined at the bottom to a narrow bar with the mounting screw holes through the bar just after the "T" and just ahead of the "r". These holes were weak spots and whenever the products were subjected to the tortures they were so good at surviving, the logos would end up missing their T's and r's with "rayno" remaining stoically in place. Replacements were offered free of charge, but few people had the ambition to replace them.

The 1970 logo utilized the same angled letters, but with a reflective texture and molded into a black parallelogram with a silver border. There were two reasons for the change. Aside from the obvious need to replace "rayno", the new ones would be used to pull off the grills on speaker cabinets. It soon proved necessary to back them up with a metal plate for this application, but the good news was that this indicates another 1970 product change and a good one at that. Now the speaker cabinets had solid backs (no more big access panels with a zillion screws holding them on) and the speakers were all front-mounted. With the grill screen now being pull-removable via the new logo (preferably reinforced), you could change a blown speaker in a fraction of the time it once took.

Another thing changed in 1970. Serial numbers went from four or five digits to seven digits with the manufacturing date coded into the first three. This system is still in use and might be worth noting. The first digit is the last digit of the year and the next two are the month. For example, serial number 0060001 would be from 1970, month number 06 (June). What about 1980 or 1990 or 2000? No problem. Yorkville usually changes the model designation or the product within ten years.

Talk about a "dry well", new products for 1970 consisted of the YSC-7 (100 Watts rms, 8 Ohms) a four-twelve column, period! It featured two of the 12" Norelcos for midrange to high-frequency reproduction and two Eminence twelves for bass as well as some added power capacity. This marked Yorkville's first use of the US-based Eminence speakers. It would not be the last.

The YPM-1 power module went into regular production in 1970 along with the MX-8 mixer. Now Yorkville dealers would have access to an eight-channel, 100-Watt PA system, something nobody else could claim at the time. Unfortunately the occasional dealer (not Long & McQuade) might sell an MX-8 without a YPM-1 leading the customer to think that it was broken because the speakers made no sound when plugged into it. But they soon learned how it all worked, purchased the necessary amplifier and the ground breaking system did well almost right from the outset. The YB-18A bass horn was also introduced to dealers in 1970 and it too was something very new, however it worked very well paired with a YBA-1A and sold briskly to rock bassists.

Pete's sound contracting operation rolled along its bumpy road in 1970. Keep in mind, this may have been North America's very first mobile concert sound system. With few or no precedents to guide them, Pete and his crew had to invent solutions on the spot. Sometimes they worked, sometimes not. Of course things broke down or got broken from time to time so everybody got to play repairman. Sometimes bands tried to use Pete and/or a crewmember as a gofer - go for beer, go for pizza, etc. - and then there were the "road managers" and "personal managers" and "agents" and swarms of groupies and hangers-on all of whom put pressure on the sound guys to do this or that, or complained to them (or about them) regarding who knows what - all of which had absolutely nothing to do with the sound system. This job was turning out to be not nearly as much fun as Pete expected - and the contracts kept rolling in.

In time the grind began to take its toll. One of the worst things for Pete had to be star-struck performers who once treated him as a friend and guru now treating him like dirt. Added to all the other grief, this may have pushed him to the brink. The coup-de-grace was inadvertently dealt by one of the nicest people in music, Steve Miller. Pete

had custom-designed him some YBA-3s with master volume controls, along with several 4x12" Cerwin Vega cabinets.

Previously Pete had demonstrated the YBA-3's ruggedness by throwing one out a second-story window onto the street below. He then brought it back upstairs, shook out the broken glass, replaced the tubes, plugged it into a cabinet and it worked perfectly, a scenario that Steve talked about for years afterwards. Pete was also contracted to do the sound for Steve's Toronto gig, but on the big night, the new amps mysteriously cut out, one by one. Pete disappeared, later to be found locked in a truck incoherently screaming oaths. Worst of all possible things for Pete, Jack Long was there. Pete must have been mortified beyond words, but however humiliating this may have been for him, it was actually a good thing for Yorkville Sound. Now Jack was fully involved in the situation.

Here were some of Jack Long's immediate problems:

- Contract sound had to be shut down. Was Pete too close to the edge to handle that?
- There were open contracts to be filled. Could Pete be relied upon to do them?
- Might the added stress of filling the remaining contracts put him in hospital?
- Who would design new products if Pete were incapacitated?
- What effect would the news have on Yorkville dealers across Canada and throughout the USA?

Somehow this all had to be untangled effectively and discreetly. Yorkville's new product developments absolutely had to get back on track and Pete's dilemma had to be resolved, period. But added to the mix were a couple of pending problems stemming from outside the company.

Phillips, Yorkville's sole supplier of tubes for a number of years, had changed their 6CA7 design and neglected to tell Yorkville. This was the output tube in most Traynor products and now brand new amps were going through them at a frightening rate. The amp designs might all have to be modified and so might every single Traynor amp ever built. Phillips was unwilling to make some the old way and calls to other manufacturers seemed to indicate that most of them had gone out of tube production entirely (Horrors! Were tubes going extinct?!).

But even this was a small problem compared to news on the political front. First there was the Canadian dollar which had been pegged at around .90 cents U.S. for years and now the Canadian government suddenly unpegged it. Up went the Canuckbuck to U.S. par - or better - and Yorkville's US dealers suddenly found themselves with a 10% price hike as a result. But that wasn't all. Washington then imposed a 10% surtax on imports of finished goods including speakers, amps, etc. Now the tally was up to 20%!! Might surtax-included pricing make Yorkville non-competitive in a market with more potential than any other in the world?

This is the kind of mess that puts inept managers either out of work or out of their minds. Despite a tendency to occasionally trip over things while deep in thought, Jack Long was and is thankfully far from inept. The same creative mind which conceived and continued to guide Yorkville Sound wasn't about to let it go down the tubes.

After Pete was treated to one of Jack's "jam sandwich" meetings (i.e. good news, bad news, good news) and the future of his sound contracting operation was resolved, Jack announced plans to spend all of his time at Yorkville, no more regular visits to the store. It was a crucial first step. Pete's mind had to be put at ease and the idea of having Jack around more of the time probably helped a lot. Pete indicated that he would be able to finish the sound contracts and expressed some eagerness to resume product designing as soon as he could get himself back together (he was in a certain amount of pain, possibly kidney stones he thought).

The situation with tubes was resolved. Phillips would remain the prime supplier and everything would just have to be modified at no charge to the customers, possibly for years to come. But that may not have been the end of it. Jack may have become convinced that, given the vanishing tube supplies, Yorkville should concentrate more on solid-state development for the sake of a secure future (who could have imagined that the iron curtain would fall someday and Russia would become the world's major audio tube supplier). One way or another, only two new tube amps were designed after that time, the YGL-3 Mark III and the YRM-1 Reverb Master. Other new tube amps that followed, YBA-4, YGM-4, etc., contained no new electronics and when the whole tube amp line was updated in the mid-seventies, no new models were added. Yorkville's tube amp production would cease entirely in 1980 and not resurface for twenty years.

And what about the sudden increases in landed costs to U.S.dealers? To partially counteract that mess, Jack decided to subsidize them to the tune of 10% which seemed to soften the blow adequately. Meanwhile he

contacted a Canadian government representative who saw to it that Yorkville eventually got back 60% of their subsidies.

Five months later Washington lifted the surtax. Although the main emergency was over, U.S. dealers would have to live with a near-par Canadian dollar creating higher landed costs and prices until it finally began obeying economic gravity in the mid-seventies.

1971

Jack had learned in 1970 that the owner of Winnipeg Piano was ill and would be hospitalized for some time. The man had hired the consulting firm of Price Waterhouse to try and iron things out in his absence and they in turn had hired a manager whose first job was to visit all the store's suppliers including Yorkville Sound. Jack was initially impressed with this young man and wondered if he'd be able to salvage the business despite having no musical background. Later that year Jack traveled to Winnipeg hoping to get some of the money owed to Yorkville and learned from the manager that he had been made an offer by the owner to buy the store. However the manager needed money, did Jack want to invest and become his partner? That required some thought. After ample negotiation it was agreed that Jack would pay a certain amount up front to settle with some old shareholders, then become a more or less silent partner with the manager being paid a salary plus ten per-cent of the business for five years after which they'd be 50-50 partners.

In November of 1971, with this partnership still in its infancy, Jack was advised on the phone by the previous owner's brother that Winnipeg Piano appeared to be in trouble and that Jack's new partner was not running it very well. A few days later suppliers began calling Jack complaining that Winnipeg Piano wasn't paying them (evidently the partnership wasn't as "silent" as Jack might have hoped). Jack visited Winnipeg the following month to obtain data, then repeated the trip in January.

Things looked grim. Winnipeg Piano was losing thousands every month. Bankruptcy appeared to be only a few months away and the new partner didn't know what to do. Later the partner said he wanted out and he wanted money - a year had passed and per their agreement he owned 10% of the business. As if this wasn't bad enough, he threatened to stay on and run the store into the ground if Jack didn't cough up. Later he reduced the amount of his pay-out demand and Jack accepted, glad to see him gone. But now Jack had to spend time in Winnipeg trying to re-organize the store.

Every Tuesday at 7:30 AM Jack Long flew to Winnipeg and every Thursday afternoon he flew back to Toronto. This meant that Yorkville went without his management three-fifths of the time. As well, the flights were a drain on Long & McQuade's finances (indirectly Yorkville's too) and Jack's family were on the verge of calling him Uncle Daddy. Not a good situation and it persisted for four months(!) The alternative, however, was even more distasteful. If Jack simply let the store go out of business he would be seen as the man who killed a seventy-year-old operation - not good for Yorkville or L&M's reputation among suppliers and creditors.

Here were some of the problems Jack faced:

- (a) His ex-partner (NOT Jack McQuade, in case you're just tuning in) had obtained a sizeable bank loan in Winnipeg and the money might never be repaid. That bank had to be told the bad news without Jack developing a bad reputation which might get back to his bank in Toronto, and while avoiding any contractual involvement - no way he was going to guarantee the loan, that was part of the agreement with the ex-partner.
- (b) The store had twenty employees, far too many, and there was a mall outlet that was losing money fast. The mall outlet had to be shut down and twelve of the employees had to go, and Jack hates firing people.
- (c) Pay-back deals had to be hashed out with all the store's suppliers without bankrupting the shakey business and without getting any of them mad enough to cut off Long & McQuade whose credit rating Jack had always tried to keep A-1.
- (d) Customers on credit at the store were long in arrears. Nobody had been collecting.
- (e) There was nobody at the store who could manage it in Jack's absence. Yet, on weekends when music stores tend to do most of their business, he had to be back in Toronto.
- (f) The lease was soon due for renewal and the lessor wanted a big increase in rent (egad!).

Solutions:

- (a) Jack told the bank all the bad news, but offered to work at paying off the ex-partner's debt over time, even though it wasn't really his responsibility. The bank had little choice but to accept.
- (b) Eleven of the twelve excess employees were let go. Number twelve's fiancée, who also worked there and had to go, put up such a good defense for her spouse-to-be that Jack relented and kept him on. He's still there.
- (c) Jack went to each supplier and got as much time to pay them back as he could. One of them, a home stereo company, only gave him thirty days - he'd remember that later. Another gave him almost unlimited time - he never forgot that - and the rest fell between the two extremes.
- (d) Long & McQuade's credit manager, Bob Clark, was transferred to Winnipeg and proceeded to clean up the receivables.

(e) A previous Winnipeg Piano employee, Glenn MacRae, who had quit because he disagreed with the ex-partner's business practices, was hired back as Jack's helper. Glenn would go on to become store manager and that he remains to this day.

(f) Jack moved the operation to a less costly venue. He also dropped the home stereo equipment (aha) and, to make it all neat and final, he also dropped the name Winnipeg Piano in favour of Long & McQuade Musical Instruments. Now there was a third L&M store.

In the summer of 1971, between trips to Winnipeg, Jack appointed Yorkville's top salesman, Len Kozak, sales manager. Later, Fred Theriault shifted his base back to Long & McQuade where he began to focus on purchasing and management. Jack also dispatched Howie Glen and another Yorkville employee to Buffalo to handle US repairs, also shipping and other matters at Laub Warehouse.

1971's new products were highlighted by the YGL-3, Mark III (80 Watts rms @ 4 Ohms). Seven years after the Hi-Tone experiment, Pete Traynor found himself once again working on the design of a powerful twin-twelve guitar combo. People were asking for a "Traynor Twin" so this time a more standard design was employed with four 6CA7 output tubes producing 80 Watts sine-wave into 4 Ohms. There were two channels; (I) with dual inputs, volume, bass, mid & treble controls and a bright switch. Channel (II) had those features plus reverb and tremolo speed & intensity controls. With typically attractive Traynor pricing, the Mark III was an instant success and remained in production until 1980. The YGC-412 guitar cabinet (150 Watts rms, 8 Ohms) contained two British-made Celestion twelves for brightness and two American-made Eminence twelves for a bassier tone. It was developed to go with the YGL-3A Mark III head also introduced in '71.

The YSC-8 column was basically an updated YSC-1. There were four of the standard #7385 eights and two closed-basket eights in the middle with whizzer cones for added highs. Power = 100 Watts rms, imp. = 8 Ohms (the two middle speakers had capacitors to reduce their bass response).

Most of these and other new products developed over the next few years were drop-tested, as Steve Miller's amp had been, from the second story onto the driveway below. This odd practise became something of an industry legend which few people believed. One night during a trade show, Pete Traynor and Jack Long had dinner with two of Ampeg's top people. During the conversation one of the Ampeg guys said laughingly that he'd heard this "crazy rumour" about Yorkville dropping things. Pete retorted with a straight face, "Sure, we do that. Don't you?". But after the move to Scarborough in 1973, only a few more things were drop-tested. Since there was no second story, the products had to be hoisted up on a forklift and yanked off with ropes. That was disruptive (everybody would stop working to watch) hence an electric shake table was obtained and the drop tests were ... well, dropped.

The MX-24, having been designed and (one) built in 1969, did not qualify as a new product in 1971, however it did go into limited production that year. There was a small but vocal group of influential Long & McQuade customers queued up to pay \$5,000.00 for them so, all things considered, it was hard to say no. On the other hand this behemoth wasn't about to mess up Yorkville's production of bread-and-butter items. Only the MX-24's circuit boards and chassis came out of regular production. All the final assembly, wiring and testing was performed by a small group of people in a separate area.

As you can gather from the long list of features (see 1969) the MX-24 was not really for amateurs, especially in the early days when nobody knew much. Few users if any had even a basic knowledge of acoustic physics, their electronic schooling was nil and the only time they might have handled a big mixer (briefly) was in a recording studio - NOT the same thing. MX-24s were thus in for a rough go. If they weren't mistreated by frustrated soundies they were modified by them, the net result in either case being trips back to Yorkville for repairs and some very disgruntled people on both sides of the issue. Although experienced mixing engineers generally raved about the MX-24, they fell sadly into the minority of users. This product was not having a very successful life.

1971 was the year Yorkville took its first steps into the realm of resale distribution. AKG microphones were being marketed to the recording and broadcast industries by a Canadian distributor who wanted Yorkville to act as a sub-distributor to the music retail business. This sounded like a good idea and two models seemed suited to the rigors of rock & roll, the D190ES and D1000TS. AKG further agreed to make a "Traynor" version of the D-190ES called the TM-100, also the TM-200, a custom made ball-end mic. This arrangement continued successfully for several years.

"Traynor" guitar strings also appeared this year. These were produced in the US and remained in distribution for a few years ("Slinky Petes" were the best sellers).

Jack Long visited Ottawa in the Fall of 1971. His mission, to enquire about obtaining a grant from the federal government to fund research and development of new products. The Liberals under Pierre Trudeau had initiated a program which seemed ideal. Mr. Trudeau had previously stated that one of Canada's greatest resources for export was innovative technology. Their latest offering, "P.A.I.T" or Program for the Advancement of Innovative Technology, appeared to be just what Yorkville needed. The grant, offered in "megabucks" by a jolly fellow in Ottawa, was available as a no-interest loan with very flexible payback terms (some PAIT grants were never paid back). All Yorkville had to do was to satisfy the requirement for innovation, a factor which the feds sought to guarantee by having government inspectors come to the factory at various stages of the development. No problem. Innovation was an everyday event at Yorkville.

There was at least one specific reason for Jack looking into grants. Customers were walking out of Long & McQuade Music with other manufacturer's guitar amps. Traynor bass amps and PAs were selling well, but with only two successful guitar amps in the line - the Guitar Mate combo and Custom Reveb head - it was clear that Yorkville needed to concentrate on this product type. Moreover, it appeared that tube supplies were going to be a problem in future (see 1970). These new amps might have to be solid-state but they would have to sound like tube amps which meant this would be a long-term research project, perhaps for a designer to work on between other jobs.

1972

Pete stayed hunkered down in the lab, basically hiding from bands still wanting him to custom build things. He claimed to be working on a project which, it turned out, was the truth. More about that later. One band, Crowbar, did manage to corral him and Pete spent some time trying to solve the singer's dilemma.

Little Kelly Jay (aka Blake Kelly Fordham, a large rock & roll performer) played keyboards and sang. He couldn't hear himself properly through forty-five degree floor monitors like the ones developed for Pete's system because, at six-foot-six, he needed something that aimed upward at a steeper angle. Pete's response was to design a cube loaded with an Altec 604E coaxial speaker. The cube was then mounted in a swivel assembly and that did the trick. It was very expensive and rather impractical, but it got Yorkville thinking about multi-angle floor monitors which would pay dividends in future.

In the spring of 1972, US-based Baldwin Music approached Jack with a proposition. They offered to pay Yorkville's R&D costs to develop and build a line of entry-level amps for them to distribute in the US. It was agreed that Yorkville could distribute the line in Canada and work soon began on "Sonax". Lab technician Art Taylor was assigned the task of designing the solid-state electronics under the guidance of chief engineer Paul Hallam (see 1969). Glen Moffatt, an industrial designer, was contracted to provide the mechanical design and cosmetics.

There was just one problem, Baldwin would have to pay 10% import duty which, they claimed, boosted their U.S. pricing too much. What could Yorkville do? Sadly the manufacturing costs could not be reduced, but the deal was being threatened so Jack came up with a solution. Yorkville Sound Inc. in the U.S. would simply have to do some growing. The chassis would be built in Toronto then shipped along with other materials to Buffalo and assembled there. There was no duty on UNfinished goods so - problem solved. Well almost. Laub Warehouse in Buffalo could not house this operation so Yorkville Sound Inc. would have to move, in this case to a larger venue at 56 Harvester Avenue in Batavia New York. Additional U.S. employees and a manager, Joe Magee, were hired and that was that - Yorkville's address had been established for the next decade-plus. US sales were growing steadily, hence this larger venue was needed for warehousing, shipping and customer service whether assembly continued there or not (it didn't).

When the line was introduced there were four Sonax guitar combos; the 720G (20 Watts, 2x8" speakers, reverb), 730G (30 Watts, 2x10"speakers, reverb & tremolo), 750G (50 Watts, 2x12" speakers, reverb & tremolo) and 775G (50 Watts, 4x10" speakers, reverb & tremolo). There were also two bass combos, the 530B (30 Watts, 1x12" speaker) and 550B (50 Watts, 1x15" speaker) and the 330P PA consisting of a four-channel mixer/amp with a pair of 4x8" columns. Sonax sold quite well initially and remained in production for roughly three years. Perhaps equally notable is the fact that these were the first Yorkville products to bear a brand name other than Traynor.

Later on, Glen Moffatt provided the chassis design and cosmetics for Pete's pet project. This was to be a very high-powered, solid-state bass amp with massive, cast aluminum end panels to provide heatsinking for the output transistors. Glen's cosmetic model was so good-looking it was displayed at trade shows starting in 1972, even though Pete was still trying to finalize the electronics. Over a year and four trade shows would pass before the unit was more than an empty shell thus earning it the nickname "cardboard amp" in certain circles. But the look of it would prove to be influential later on (so would the amp).

Pete Traynor found something of a soul-mate in Gene Cerwinski. Both had recent experiences in concert sound contracting (LOTS of things to talk about there) and both had at least some Polish blood in their veins. Their meeting at a trade show early in 1972 eventually netted an interesting deal. Gene liked the MX-8 (see 1969) and wanted Yorkville to produce a version of it with a brushed aluminum control panel for him to market in the US under his "Cerwin-Vega" brand. The deal was partially a swap arrangement; they got mixers from Yorkville and Yorkville got raw speakers from C-V. C-V also included three enclosure designs which could be built by Yorkville under the Traynor brand. These were introduced in August/72 as the YCV-212, a horn-style, reflex twin-twelve cab for PA or instruments, (200 Watts rms, 8 Ohms), the YCV-18, a single-eighteen, half-folded-horn for bass guitar (300 Watts rms, 4 Ohms) and the YCV-18B (300 Watts rms, 4 Ohms), a single-eighteen full folded horn also for bass guitar, although some were used for PA.

The YS-15P (50 Watts rms, 8 Ohms) made its appearance in March/72. This was a single-fifteen bass cabinet for use with the YBA-1 (see 1963) or the YBA-2A (see 1967) with a port for added efficiency. The old YS-15 (see 1964) remained in production until mid-1973 when it was retired.

One day during lunch break, an employee sat down in the sound room to play guitar. Only an amp chassis and a YSC-3, 4x8" column were in there so he plugged one into the other, plugged the lab's old Les Paul into the amp chassis and was astonished at how good it sounded. This was reported to sales manager Len Kozak who had a test model combo made up and, after field trials, voila - the YGM-4 Studio Mate (25 Watts rms). Basically a YGM-3 Guitar Mate chassis (see 1969) in a sealed four-eight enclosure, the Studio Mate found a niche among guitarists who valued its unusually rich sound highly enough to overlook the fact that it came from eight-inch speakers (most guitarists doted on 12-inch speakers at the time) and that the amp was also a bit large for 25 Watts. The YGM-4 sold regularly for several years based on sound alone.

The YF-12 (200 Watts rms, 4 Ohms) was also introduced in 1972. This was another four-twelve guitar cabinet for use with the YLG-3A. Its main advantage over the YGC-412 was its 4-Ohm impedance. This meant you only had to use one to get maximum power from the YGL-3A.

It was decided that the lab should design a four-channel mixer/amp with more features and power than the YVM-3, as a replacement for that now aging product. Dirk Vandersleen got the nod for that project and research on the new guitar amps was sidelined temporarily. Dirk designed the YVM-4 (70 Watts rms @ 4 Ohms) which had volume, bass, treble and reverb dials on each channel plus masters for volume, reverb and reverb tone. It proved to be a very successful product remaining in production until 1977 when it was replaced by the model 4200.

Customer requests for Yorkville to develop a mixer/amp to compete with Shure's Vocal Master (how ironic) resulted in Dirk Vandersleen again taking a break from the new guitar amps to develop the YVM-6 (6 channels, 100 Watts rms @ 4 Ohms). This, like the MX-8, was a box-with-lid style mixer/amp with some very versatile features for the times. There were volume, bass, treble and reverb send controls plus a reverb/effects selector switch on each channel. With this switch you could connect an external echo unit for use on only certain channels with built-in reverb on the rest, or you could connect a power amp (YPM-1) and monitor speakers to the effects send jack and use the reverb send controls for monitor levels. The masters included main volume and monitor volume (paralleled off the main master), reverb & reverb tone, effects level and an effects/effects+reverb selector switch. There were also five "anti feedback filter" notch switches. A year later, EQ in & out jacks were added for patching the EQ-1 (see 1973). The YVM-6 was virtually an instant success and remained in production until 1977 when it was replaced by the model 6400.

Another "Traynor" mic was added to the lineup in December of 1972. This time a Canadian manufacturer - Astatic - was called upon. The TM-150 had a brushed aluminum body, a matte silver ball end and was ruggedly constructed. Like the TM-100 and TM-200 it was low-impedance and came with a high-impedance adaptor cable. It's worth noting that speaker cables, mic cables and shielded cables were in regular production at Yorkville, in fact the TCL-1 "column lines" first appeared in a 1967 price list, but had been produced for some time even before that.

1973

What a year for moving! Long & McQuade on Yonge Street had grown, first to encompass the corner store which became the drum department, then across the side street to occupy two floors of another building - the lower floor for organs, pianos and band instruments and the upper floor for offices. But now it was clear that an even larger location was needed and preferably all under one roof. Starkman's Chemists on Bloor Street west of Spadina was vacating and the location seemed ideal. The move was soon accomplished.

Over at Yorkville, 744 Dundas St. East (see 1967) was nearly bursting at the seams. Yorkville had to move again, this time to more spacious quarters in Scarborough, then an eastern suburb of Toronto and now part of the "Toronto Mega City". 80 Midwest Road was a four-unit commercial complex and unit #1 with 40,000 square feet seemed ideal for Yorkville's needs. The moving was all over by mid June. A huge improvement over the two previous locations, this venue was all on one floor - no more moving things upstairs and downstairs in dumbwaiters or freight elevators or dangling precariously at the end of an outdoor freight winch. Now there was "linear flow", at least so said Peavey honcho Hollis Calvert when he visited the plant for a tour.

New products for 1973 included the YSC-9, a rather large PA cabinet containing a fifteen and a twelve inch speaker for lows and mids with highs delivered by an RCF H4823 aluminum sectoral horn coupled to an RCF TW-100, 1" compression driver. Ratings were 100 Watts rms, 4 Ohms. Later on the aluminum horn was replaced by a vacuum-formed ABS unit of similar proportions. Significant here was Yorkville establishing RCF in Italy as a supplier, a relationship which would continue for decades to come. Probably another "first" for Yorkville was the EQ-1, a seven-band graphic equalizer unit for use in PA or instrumental applications. It came in a vacuum-formed case and comprised the electronics of an equalizer from the MX-24 (see 1969) with the addition of in and out jacks, a bypass switch and an on-off switch.

Something happened at Phillips in Holland. They changed that lovely-sounding Norelco 12-inch speaker replacing the alnico magnet with one made of ferrite ceramic and they increased the power capacity of the voicecoil from 25 to 50 Watts rms. It just didn't sound the same. That killed the YT-12 (see 1965) which was replaced by the Y-212. Good news was the Y-212 (2x12" -speaker guitar cabinet, 150 Watts rms, 4 Ohms) sounded quite nice and, because it utilized the YGL-3's speakers, you could use it with the YGL-3A head as a more compact alternative to the YF-12.

Many guitarists had maintained that if Yorkville could produce an amp which sounded like the YBA-1 but offered reverb, tremolo and a master volume control, it would be a winner. In the Spring of 1972, Dirk Vandersleen (again) was called upon to design such an amp. The Reverb Master guitar head featured dual inputs, as usual with one more sensitive than the other so that the amp could be overdriven more or less easily. Other controls included volume, bass, middle, treble, reverb, tremolo speed and intensity and a treble boost switch. For some reason the model number was first listed as "YSR-1A" in the June/73 price listings, however that was soon amended to read YRM-1. It performed and sold well, usually with a Y-212 cabinet and remained in production until 1979.

Bassists had been asking if there would ever be a combo amp with more power than the YBA-2B Bass Mate (see 1969). Their answer came in October of 1973 when the YBA-4 Bass Master combo made its debut. Basically this was a YBA-1 chassis (see 1963) loaded into a sealed, single-fifteen cabinet. The speaker baffle was angled upward slightly so that the bassist could hear himself better on cramped stages. A good idea, but it gave the amp a slightly odd side profile dubbed "wedge of cheese" by some. To ensure that the tubes didn't get vibrated to death, the chassis was shock-mounted on thick rubber stand-offs causing a few neophytes to comment that the knobs somehow felt "spongey". But nobody complained when they plugged in and played - the sound was fat and punchy. The YBA-4 remained a popular model for several years. In 1976 it was remodelled along with the rest of the tube amps and the rubbery vibration solution was replaced by something that felt more solid - the speaker magnet was simply braced to the back of the enclosure to phase-cancel vibrations (live and learn).

What do you call the most powerful solid-state bass amp in the world? A meeting in the Spring of 1973 netted many suggestions - even "Beavertone" was jokingly put forth by some misguided Canadian patriot (actually a single Beavertone prototype was made as a joke with a strange looking beaver on the front panel). At last someone said "Mono Block" and that was applauded by all. One of the prototypes was given the 2nd floor drop test after which a bottom plate three sixteenths of an inch thick(!) was specified to prevent the massive transformer from warping it under drop test conditions, however no other changes were necessary. In June the

working (Beavertone) prototype was taken on tour by the Greaseball Boogie Band and survived a gruelling six weeks on the road.

One or two competitor's products claimed to put out 250 Watts or more into 2 Ohms but they shut down due to overheating. The Mono Block B (B for bass - a guitar model was being considered but never materialized) could run into 2 Ohms all night at full volume with no problems. Best of all, it put out 325 Watts sine-wave into that load, another Yorkville "first". This was Pete Traynor's baby, the bass head he'd been working on for over a year (see 1972) and it lived up to everyone's expectations. There were dual inputs, volume, bass, low mid, high mid and treble controls plus a master volume. Preamp out and power amp in jacks were located on the back panel so that you could patch-in an EQ-1 or even "slave" the amp for PA use. With all that cast aluminum on the ends and slabs of aluminum everywhere else it really did look like a high-tech "block". The Mono Block remained a popular product for several years being updated to the Mono Block II in 1977. This version added a five-band graphic equalizer at the expense of only one of the old tone controls - not a bad deal considering that the price remained unchanged.

Matching speakers were needed for the Mono Block and Cerwin-Vegas got the nod. Designed by Yorkville, the YCV-215 was a four-Ohm, 400-Watt rms, twin-fifteen cab with a ducted port at the bottom and came with a 4-wheel dolly. The YC-188 was based on the YCV-18B (see 1972). The main difference was the addition of two eight-inch speakers on the front of the internal single-eighteen enclosure to provide the bassist with more note-definition onstage (folded-horn bass enclosures have a tendency to leave a dead spot near the mouth of the horn at certain note frequencies due to their wavelengths - farther away the notes become audible). Tilt-back wheels and handles were also provided. Both cabinets and the Mono-B were introduced in October.

1974

Peter Fremd, then Yorkville's U.S. sales rep for the US eastern seaboard, had made a promise back in 1970. He had told John Darco, a young repairman at a music store in Union New Jersey, that he could retail Yorkville's products when he opened his own store after getting out of the army. When John followed through with his request a few years later, he was given the Traynor line for his new store, Music City, even though another dealership had previously been established in the general area. Yorkville seldom infringes on a store's territory - L&M had suffered "vanishing exclusives" too often at the hands of other suppliers - but a promise is a promise. The other dealer was not pleased but Music City got the Traynor line anyway.

John had to move after a while and the new Music City location was, once again, close to an existing Traynor dealer, this time VERY close. A representative from Yorkville (not Peter Fremd who had long since migrated away) had to go there and attempt to smooth things over.

John Darco, despite an abundance of enthusiasm and energy, began falling behind in his payments to the point where tens of thousands were in arrears to Yorkville. This matter came up in conversation when Jack met John at a trade show in June of 1974. Jack said that he would go down to Music City and see if there might be something he could do to help. When he arrived there in September, Jack discovered that John had tied up too much money in slow-moving keyboard inventory, hence there was none left to pay for bread-and-butter items like Yorkville's which sold or rented more regularly. He then suggested that Yorkville ship all future stock on consignment. John agreed and a chattel mortgage was drawn up enabling Yorkville to remove all stock if John defaulted. Thereafter Jack worked with John as much as possible and developed a respect for him. Nevertheless funds were sometimes slow coming and things were going farther in the red. Jack didn't want to exercise the chattel leaving John with nothing so he suggested that Music City in Union New Jersey become a Long & McQuade store. There were advantages for both parties and John promptly agreed.

Long & McQuade in Union New Jersey moved north to Parsippany in 1979 and remained there until it was sold in the latter 1990's. The new owner then moved the operation to Landing NJ, but retained the Long & McQuade name for the store.

Someone must have seen the wedge-shaped floor monitor speakers Pete Traynor had built for his contract system and asked if they could have something like that. This would have been no problem, they were simple 45-degree affairs. But thanks in part to Little Kelly Jay (see 1972) it was apparent that floor monitors needed more than one facing angle. In fact forty-five degrees was only suitable for fairly distant coverage on big stages. For up-close coverage on small stages the monitor would have to face upward much more steeply. The pivoting solution for Kelly's monitor was just too complicated and expensive to become part of a production model so the problem was put in the hands of Yorkville's speaker designer at the time, George Rotshtetter. His solution was eloquently simple. He designed a compact five-sided (seven including the ends) enclosure with three built-in angles. Loaded with a pair of the 8-inch speakers from the YSC-1 column, dual input jacks and a volume control it became the YM-1 floor monitor (50 Watts, 16 Ohms), another "first" for Yorkville.

Verrrry interesting! So thought Pete Traynor as he experimented with Motorola's latest gadget for 1974, the piezoelectric tweeter. "It doesn't even need a crossover!" he jabbered gleefully as he wired it to the output of a Mono Block and plugged in a bass(?!). Everyone held their breath. What came out of the little black piece of plastic was horribly thin sounding as it buzzed and rattled its way across the workbench falling finally to what everyone thought would be its doom. But no, the "piezo" tweeter survived! It did indeed cross itself over in a manner of speaking and appeared able to take tons of power, not to mention the occasional tumble. Soon afterwards the YSP-1 Sibalance Projector was born - five of these tweeters in a small, five-faceted-front box with a volume control. Now bright-sounding highs could be added to any PA speaker or instrument amp and be blended in as desired. Shortly afterwards two piezo tweeters were added to the YM-1, although one was subtracted later when it was discovered that there was too much "tweet" causing some users to tape over one of them.

1975

Work had progressed slowly on the grant-funded research Jack initiated in 1971. Even though the project involved guitar amps which are inherently far from technology-prone, Yorkville needed to tackle that issue successfully while keeping government grant inspectors happy about the level of "Innovative Technology". The government said, "No tubes in the design". No problem - the lab used MOSFETs, new solid-state devices which were alleged to perform like tubes. They said, "No passive tone control circuits." Again, no problem - the lab designed active tone circuits including the semi-parametric type found on recording mixers.

Dirk Vandersleen, despite interruptions to design several products, had managed to work on the project's electronic designs from time to time and in the Spring of 1975, it looked like he was through. Engineer George Jung had come up with chassis/case designs inspired somewhat by the Mono Block in that they were all aluminum but less massive, and the government engineers were very pleased at how "innovative" everything was. Even the top and bottom plate fasteners were far-fetched. Instead of screws, 2-part plastic hammer-in pegs were used which required two screwdrivers to pry out (repairmen would not be amused).

The remaining details to be worked out were cosmetics and a name for the line. Four people including Jack Long were directly involved either overseeing or designing the products (Pete Traynor was not among them) and a whole group of people had been involved as advisors, so it was decided that they should be called the Group Series.

There were six heads, five cabinets and a twin-twelve combo. Everything was divided into power groups - Group One was fifty watts with green control panels, Group Two was 100 Watts with blue control panels and Group Three was 120 Watts with yellow control panels. As mentioned before, the amps featured active tone controls. No guitar amps then on the market had this feature - few if any do, even to this day; guitar amps historically feature passive tone controls. Consequently, no-one had ever plugged into an amp that worked like these. And, just to make the experience more memorable, some of these controls were semi-parametric.

"Semi-parametric"? Yes. All the amps in Group One and Two had a mid control associated with a "shift" knob and a switch to designate the range of frequencies in which the shift knob operated. For those familiar with recording mixers, "shift" was simply another word for "sweep". For the unannointed, these are features which alter the center frequency of an active tone control. For example, the midrange control on a regular guitar amp tends to be very roughly centered around 500Hz. In an active EQ circuit such as this, the center frequency is (a) more defined, (b) able to make a peak as well as a notch in the frequency response (passive midrange controls can only make a notch) and (c) capable of being swept or "shifted" across the audio band making very serious changes in the sound.

But that wasn't all. When you set such a midrange control up or down, then "shift" it while someone is playing through the amp, you get a sound effect. Boost the mid then shift it and it sounds like a wah-wah, cut it and the sound is a little like a phaser. Of course you can't twist a shift knob and play too so, on the Group Two VC guitar head (VC standing for voltage-controlled filter which is how the shift circuit worked in all these amps), a "shift pedal" jack was installed. This would work with any volume pedal as long as the potentiometer was 100K linear. Now you could just plug in a volume pedal, turn the mid up or down, set the range switch to low (300Hz to 1200Hz), mid (700Hz to 2500Hz) or high (1200Hz to 5000Hz), then play and work the pedal to shift. Fun, but confusing.

Then there was the tremolo. This wasn't the ordinary "pull-pull" type where it repeatedly reduces the gain then lets it go back up to normal, this was a "push-pull" tremolo with the gain going as far above normal as below normal. Why such a thing? So that the tremolo could operate the voltage-controlled "shift" function (egad). Indeed, there was a switch marked "Auto-Shift/Tremolo" which let you run the shift effect on automatic via the tremolo oscillator. Then you could preset everything and switch it on or off with the tremolo footswitch. Innovative, but confusing.

Note: for people who have a Group 2VC or 3VC and have trouble getting the auto shift to work, experiment with different shift control settings. The shift control has an effect on this automatic function. A resistor inside might also need changing. Have a technician check it out.

The Group Three VC had a five-band graphic equalizer with a "Fixed/Shift" switch under each slide pot. That's right, you could "shift" the whole EQ, or just certain frequencies. Naturally it had the same tremolo/autoshift switch and shift pedal jack as the G2-VC and later on an EQ bypass switch and footswitch jack were added so that you could return to bass-and-treble-only operation when the effect wasn't needed (also later on, the kitschy colour schemes were all replaced by battleship grey). There was, as well, a regular Group Three with a standard 5-band EQ and nothing "shifty" at all (boring, but not confusing).

Finally, there were two bass amps, Group One B and Group Two B. Aside from a shift control and range selector switch for the mid they were pretty straightforward. All amps had dual inputs, volume and master volume controls plus send and return jacks on the back panel for patching an EQ and the guitar amps all had reverb. Group amps were also very rugged. You could unplug a Group Three (VC) from the speaker cabinet while someone was playing at full volume and draw arcs from the jack-tip to the amp's chassis, then plug back in - no problem. One Group Two VC even survived a store fire still working but with all the dials and switches burned off.

Cabinets for the Group series were as follows:

G1-215 - 2x15" bass cabinet 100 Watts, 4 Ohms

G1-212 - 2x12" guitar cabinet, 100 Watts, 4 Ohms

G2-150 - 2x15" bass cabinet with tilt-back wheels & handles, 200 Watts, 4 Ohms

G2-312 - 3x12" horn-style guitar cabinet with tilt-back wheels & handles, 200 Watts, 2.6 Ohms

G3-412 - 4x12" guitar cabinet with tilt-back wheels & handles, 250 Watts, 4 Ohms

In retrospect, there were two problems with the Group Series; everything was a just little too expensive and a little too "innovative". There was another problem too. A nasty and rather protracted recession gripped North America in the mid-seventies, not the ideal environment in which to introduce this or any line of products that weren't bargain-priced. Anyway it was all over by 1976 when the Group Series went out of production, but not out of our dreams.

A footnote to all this "shifting" stuff. Can you guess what resale product was added to Yorkville's accessory lineup in 1975? That's right, the VP-1 volume pedal. It's still there.

There was another Group amp, the Group Four VC. This had all the features of the Group Three VC except reverb, and the power was 250 Watts into 4 Ohms. Only a few were made, most of which went to bassist Prakash John along with G4-154 cabinets, each with a central fifteen surrounded by four tens. This was the rig he used on Alice Cooper's "Welcome To My Nightmare" tour. His custom-made bass actually had a separate pickup for each string thus requiring four bass amps (and providing more fun for the sound man). The G4VC didn't go into regular production, but its power supply, output stage and case/chassis were incorporated into a power amplifier, the YPM-250. This was Yorkville's second power amp.

Later, the YPM-250's output stage was incorporated into another product. There was a demand for a larger, more powerful mixer/amplifier to complement the YVM-6 which resulted in development of the 10-channel YVM-10. Three designers worked on this project, Phil Simone, Dirk Vandersleen and Guy Fedorkow. Guy developed an interesting "Anti-Feedback Filter" circuit for the YVM-10 wherein there were six cut-only EQ sliders, each one with a light-emitting diode or LED over it. All six lights would flash along with the music until feedback occurred, then only one light would stay on and that would be the slider you pulled down to kill the feedback - probably another "first" for Yorkville. The balance of features were identical to the YVM-6 (see 1972). A version with low-impedance XLR mic inputs, the YVM-10L, was also available for an added charge. Although large and heavy by modern standards, the YVM-10 was both functional and reliable and remained a popular product for several years.

The YRM-1SC Reverb Master combo (45 Watts rms @ 8 Ohms) was introduced early in 1975. This was a mellow-sounding four-ten guitar amp based on the YRM-1 head (see 1973). It remained in production until 1979.

Someone mentioned to Pete Traynor that a version of the MX-24 (see 1969) with only sixteen channels, one graphic EQ rather than two and two VU meters instead of four could probably sell for around half the price of an MX-24, i.e. \$2500.00, and at that price it might do quite well. Pete, in a now-rare flurry of product initiation, spearheaded development of the MX-16. Perhaps he was hoping that things had improved since 1972. At that time Jack Long, distressed at how many MX-24s were being misused, tacked another \$500.00 onto the big mixer's price to cover the cost of sending a Yorkville technician along with every mixer to instruct the user. Later in '72 when even this radical move failed to avoid all the user problems, he discontinued the MX-24.

Sadly \$2500.00 was a goodly chunk of cash back in those recessional mid-seventies thus, after a short, unimpressive sales life, the MX-16 met its demise in 1976. This would prove to be Pete's last involvement with a Yorkville product.

1976

Bill Sparling, a saxophone player, was a friend of Jack's who had worked for him at the store through the early to mid 1960s. When Bill left Long & McQuade he took on a partner, George Maurice, and together they opened a music store in a northwestern part of Toronto then known as Downsview. Sparling Maurice Music originally specialized in band instrument repairs, but gravitated to general musical instrument sales over time, including Yorkville's products. George Maurice eventually left the business and Bill carried on.

Bill called Jack in March of 1976 and asked if he could come over for a meeting. He had problems and was afraid he was going to lose the business. Jack, after going over all the data briefly, concluded that there were probably only a few problems, but Bill was still concerned. He had lost ten thousand dollars in employee thefts - financially and personally devastating - a key employee had left, his sales were down 20% from the previous year and he owed his suppliers a fair bit of money. Jack asked for some more time to go back over the numbers before rendering a more detailed opinion and they agreed to meet again the next day.

As Long & McQuade's purchasing coordinator, among other functions, Fred Theriault had sometimes encountered situations where suppliers would give the store an exclusive for Toronto on a given product line, usually one that wasn't selling in the area. Then, once the store had made the line successful, the supplier would give in to demands from L&M's competitors who now wanted to jump on the bandwagon. The suppliers would claim that Toronto was just too big for one store to tie up the line and L&M would lose the exclusive. It seemed to both Jack and Fred that a second Long & McQuade in town would weaken that argument and possibly strengthen their hold on future exclusives. They further concurred that the northwest part of Toronto seemed like a good prospective area. There would be benefits for Bill including more purchasing power and Jack at the other end of the phone whenever he needed advice. However it remained for Bill to hear the proposition.

At their next meeting, Jack offered Bill Sparling three suggestions.

- (1) The business wasn't really in that much trouble. With some extra effort Bill could put it back in shape.*
- (2) There was a year and a half left on the lease. Bill could use that time to sell off the stock, pay off his suppliers and wind the business down, then just walk away with whatever money was left.*
- (3) Long & McQuade could take over the operation.*

Bill took suggestion number three without hesitation. Oddly enough, it was only then that Jack visited the shop. It looked empty and dismal, however he offered Bill a little cash up front and a deal to buy him out over ten years. Then Bill would continue to run the shop with help from Jack and Fred. Thus, with a fresh coat of paint, some new shelves, a stock infusion and a "midnight madness" sale to kick it all off, Long & McQuade Downsview became store number four.

Over the following decades more stores would join the Long & McQuade group, often in somewhat this manner. Basically, Jack would be approached by someone wanting to sell a viable music store in a large market area where there was need of an L&M-style operation. If they simply wanted out from under the burden of owning and operating all alone and were otherwise good managers, Jack would buy the business have them stay on to run the store.

As of Spring in the year 2000, the Long & McQuade chain had grown to include nineteen store locations from Oshawa Ontario to Victoria, B.C. Their headquarters, the twentieth location, is scheduled to relocate from Toronto to a new building in Pickering Ontario late in 2000.

Back to Yorkville and the year 1976, a contest was held in January to see if one of the employees could come up with an acceptable new look for the tube amp line. The winner, sales dept. employee Mike Holman, sketched a waterfall-front concept with angled control panels, a feature requested by users for many years since the old recessed-panel design protected the controls quite well but made them very hard to see and operate on a dark stage. The new design solved that problem and the controls remained protected. Mike was offered the opportunity to act as product manager in order to get all models manufactured in time for the NAMM (National Association of Music Merchants) show in June. Except for the YBA-4 & YGM-4 which came a little later, the mission was accomplished on time with the considerable assistance of plant manager Ken Skiba.

Electronically, there were some minor improvements to tone control circuits, also the controls were all spaced a little more widely to make them easier to reach. A new grounding scheme was added to the electronics with a "lift" mode to reduce ground-loop hum.

Major changes involved cabinetry:

YGM-3 & -4 - were now open-backed which increased the sound output noticeably

YBA-2B - the sealed speaker enclosure was enlarged somewhat which increased the bass output

YBA-4 - the 15" speaker was braced to reduce cabinet vibrations (see 1973) and the enlarged enclosure was ported increasing sound output

YRM-1SC and YGL-3 - were both slightly taller making the controls easier to reach.

In the spring of 1976, Larry McCabe (see 1969) was assigned the task of developing a new 3-way PA enclosure with a horn-loaded woofer. He wound up designing both the enclosure and its 15" woofer. The YSC-10 featured a ported exponential bass horn, a large mid-high horn with an RCF driver borrowed from the YSC-9 (see 1973) and two Motorola piezo tweeters. There were also tilt-back wheels and cast aluminum handles. Ratings = 250 Watts rms, 8 Ohms. The YSC-10 remained in production until the early 1980s.

Henry Balaban, an inventive electronics technician originally from Isreal, joined the lab just in time to help finalize the last of the re-worked tube amps (it was his idea to brace the new YBA-4's speaker magnet). His expertise would prove invaluable over the next few years as both a problem-solver and speaker designer.

Eric Von Valtier first approached Yorkville in 1972 when he was looking for production of his new invention, the polyphonic synthesizer. More accurately Eric wanted Yorkville to build the electronics. The product would be sold in kit form to people with Hammond B3 organs so that once installed, at the flip of a switch their trusty B3 became a synth unlike any other on the market. You see in 1972, all synthesizers were still either monophonic or bi-phonic, i.e. able to play only one or two notes at a time. A polyphonic synth could play whole chords and was exactly what the keyboard market was eagerly awaiting. But even though the idea of a poly synth was very exciting, this application had limited potential since it was targeted at such a small market, potentially made even smaller by the fact that installation of this kit was definitely not going to be a do-it-yourself project. Yorkville passed on it.

Now it was four years later - the Atlanta NAMM show, June 1976 - and Eric was approaching Jack Long with a different invention, something for Yorkville to build and market as an effects unit. He called it the Rotating Electronic Vibrato Synthesizer or REVS. At that point it was a just a circuit which he demonstrated by connecting it between an organ and a stereo power amplifier driving two speakers. The effect closely replicated the sound of a Leslie cabinet - that big wooden box with slots at the top and bottom and rotating components inside that produce the sound we associate with most organ music.

The circuit had some potential, but Eric Von Valtier offered more. Yorkville needed a productive head designer and this guy might be ideal. Jack told him that Yorkville wasn't really an effects unit company, but if Eric might consider designing an amplifier around his circuit, Yorkville could be interested. Eric said he'd keep Jack's offer in mind and some weeks later they came to an agreement. Thus began a five-year relationship that netted a whole string of new products.

Pete Traynor left Yorkville in the Spring of 1976. For years he had been suffering with a bad back. The pain had been a factor in his lack of productivity, that problem being perhaps of more concern to Pete than to Jack. However Jack agreed to buy out Pete's portion of the company over time so that Yorkville wouldn't suffer a major financial jolt while Pete would be assured of an income for a good long time.

That was it. After thirteen years, Yorkville was without the man who had once designed all of its products and who co-founded the company. Others were obviously capable of designing very successful products, but it was sad to see Pete go.

In following decades Pete Traynor would undergo two bouts of spinal surgery and move to Truro, Nova Scotia then back to Toronto, all the while searching for the right relationship. Finally Pete met Susan, a lady from a small town north of Toronto. They were married and he settled down there to live among his gadgets and friends in a country setting. The classic "happily ever after"? One can only hope so.

Footnote:

The term "pioneer" sometimes tends to get thrown around recklessly, but you can apply it to Pete Traynor without reservation. If being a pioneer means steaming into uncharted waters, sometimes against the sage advice of others and inventing solutions to problems no-one could ever have imagined, then Pete qualifies. His contributions to live music technology include the portable PA system, portable stage lighting, the guitar amp master volume control, reliable high powered bass amplification, the 8-10 bass cabinet, contract concert sound, the "wedge" floor monitor, and more. Additionally, vintage amp collectors around the world now regard some of Pete's creations to be among the finest sounding, most durable amps ever built. Surely if the term "pioneer" ever needed a home it would belong with Pete Traynor.

1977

What a year! Before 1977 was over, no less than twenty-six new products came off the assembly line, nineteen of which were not Traynor brand. Instead of an effects pedal, Eric Von Valtier had designed a five-channel, 300-Watt rms (@4 Ohms) keyboard mixer/amp with his effect, now called *RVS (Rotating Vibrato Synthesizer) built in. This was the RVS-II, a dedicated keyboard amplification system and, as such, another "first" for Yorkville. RVS-II was jammed with specialized keyboard features such as switch-activated piano pre-EQ on channel one and organ pre-EQ on channel two, also masters for RVS speed and acceleration and a speed change footswitch jack (Leslie cabinets have two rotation speeds and the older ones speed up more slowly due to drive belt wear so these masters let the organist adjust everything). There were also volume, bass, treble and RVS controls on each channel and a master 5-band graphic EQ.

*The "E" in REVS was dropped as revs is a common term in the auto industry and cannot be registered.

Naturally if there was an RVS-II there had to be a RVS-I. This was a twin-twelve, 70-watt combo with two channels and all the RVS effect controls. Additionally there were speaker cabinets - the **BW-1, a 200-watt rms, 8-Ohm single-fifteen + horn enclosure designed for the RVS-II and the RVS-1ES, twin-twelve extension speaker cabinet which let the RVS-I user play through a total of four 12" speakers. Another product, the PM-300 power amp was basically the RVS-II's output stage packaged separately. There was an additional feature however, a load impedance switch which gave the amp the ability to deliver 190 watts @ 8 ohms, 300 watts @ 4 ohms and 425 watts at 2.7 ohms, or 200 watts @ 4 ohms, 300 watts @ 2 ohms and 390 watts at a staggeringly low 1.3 ohms - the equivalent of SIX eight-ohm speakers.

It didn't take long before someone concluded that the PM-300 would make a great PA power amp just as the BW-1 would make a great PA cabinet and so they were put into production almost immediately under both the Traynor and RVS brands.

** "BW" speakers? Yes, the cigar-chomping Mr. Von Valtier's nickname was Bullwinkle.

It is also worth mentioning that the BW-1 was Yorkville's first, compact, single-fifteen+horn enclosure - well, with one possible exception. An obscure cabinet, the YHC-15, seems to have appeared briefly in the early 1970s. Far from compact, it contained an internally enclosed fifteen-inch woofer with a round horn, bracket-mounted to the top of the internal enclosure. Since its year of introduction is unknown, the YHC-15 is mentioned here.

The U.S. NAMM expo in June of 1977 proved to be a great showcase for RVS, but the hit product was Eric's latest creation, the six-channel, console-style Traynor 6400 PA mixer/amp (100 watts @ 4 ohms). It looked far more slick than the old mixer-in-a-box YVM-6 (see 1972). It was loaded with features including a six-band graphic EQ and low-impedance XLR input connectors on each channel in addition to 1/4-inch jacks. There were also 3-position switches for reverb level, monitor level, effects level (effects send and return jacks let you connect an external echo unit) and input attenuation plus volume bass and treble controls on each channel. There was a full set of main and monitor masters, a main/monitor power amp selector and the 6400 sold for \$100.00 less than the YVM-6 (which it promptly replaced).

The 6400 also had an unusual feature on the back panel - an octal-socket "stacking" connector which took a special multi-element cable so that it could be coupled to the Traynor 6401, a rack-mountable, non-powered mixer with control features almost identical to the 6400. In addition to supplying another 6 channels for a 6400, the 6401 could alternately be used with a power amp as a separate mixer.

The Traynor 4200 shared the 6400's console styling and woodgrain end panels. It provided 70 Watts rms output into 4 Ohms, four channels, dual 1/4" inputs on all but channel 4 which had an XLR and a 1/4" input, and there were volume, bass and treble controls plus a 3-position reverb switch on each channel. Masters were simple - volume, reverb and a five-band graphic EQ. Aside from the dual speaker outputs there were main out and PA in jacks and a reverb footswitch jack. The PA in jack, also featured on the 6400, would become standard equipment on all Yorkville mixer/amps. When you plug something in here you interrupt the mixer signals on their way to the built-in power amp. This enables you either to insert an external EQ, compressor, crossover, echo, etc. between the mixer section's main output and power amp, or to "slave" the power amp to a bigger mixer perhaps to drive monitor speakers. The YVM-4 which sold at the same price, was replaced by the 4200.

**The Traynor BW-2 was added as a lower powered (100 Watts rms, 8 Ohms), lower priced, fifteen+horn cabinet to complement the BW-1. Unlike the grey-covered BW-1, the BW-2 was covered in black vinyl and had a white horn.*

**Due for an updating, the Mono Block B (see 1973) became the Mono Block II in 1977 when a 5-band graphic EQ was added (at NO extra charge). The YF-12 guitar cabinet was replaced by the Y-4120, a four-twelve guitar cabinet for the newly re-styled YGL-3A head.*

**The YM-3 floor monitor (90 Watts rms, 8 Ohms) offered four of the 8-inch YM-1/column speakers plus an RCF TW105 tweeter and a volume control, all in the same type of multi-angle enclosure pioneered for the YM-1. However the YM-3's grey vinyl covering and black grill cloth (echoing the BW-1) foreshadowed a change away from the old black vinyl with chrome and black bumper-strip edging and silver-grey gillcloth in use since 1970.*

**Yorkville's first stereo power amp, the PS-600 combined the output stages of two PM-300's in a grey-vinylled flight case with a removable lid. Like the PM-300, the PS-600 had a built-in cooling fan, a "crowbar" feature to protect speakers in case of amp failure and a load impedance switch that enabled the user to connect several speakers to each channel without damaging the amplifier. The PS-600 also featured both XLR and 1/4-inch inputs on each channel with a 3-position input selector switch capable of reversing the polarity of the 1/4-inch sockets. "Clip" LEDs (light-emitting diodes) on the PS-600 were another first, at least on a Yorkville product, and have become standard features on most audio electronics of any type. These flash when the amplifier is about to distort.*

**Then there was the YH-1, basically the 100-Watt, 16-Ohm BW-1/YSC-10 horn and driver in a box with a passive crossover, dual, parallel input jacks and a level control. And what could it be used with? Good question - possibly one of the Mono Block's bass cabinets(?). However its origin was of some interest. The YH-1 was simply a Traynor version of the Sound Crew H-1.*

And what was "Sound Crew"? Read on.

Big PA dawned in the early seventies and by mid-decade bands were clamoring for its trappings. Primary among these were speaker boxes - big loud ones, preferably the kind found behind movie screens which had appeared stacked up at Woodstock in large numbers. The original versions of these enclosures from JBL and Altec were too expensive for most, so people were replicating them in small shops here and there for sale to various music stores. The trouble with small shops is that they can't always supply things in a reliable manner or with reliable quality. By 1976 Long & McQuade desperately needed "bins and horn sleeves" (a.k.a. bass horns, midrange horns and boxes to hold high-frequency horns) and Yorkville was "it".

Andy Cox who worked for Long & McQuade, suggested the name "Sound Crew" and Mike Holman (see 1976) designed the logo. Thus was born a whole new line of products most of which were empty boxes in which dealers would install their own speakers or horns. Models included the A7 Altec Voice of the Theatre bass bin, the 511B Altec horn sleeve, the 4560 and 4530 JBL bass bins, the 12-MID midrange horn which Yorkville designed with a 12-inch speaker, sleeves for the 2345, 2350 and 2395 JBL horns and the H-1 high-frequency horn unit mentioned above (see YH-1) which provided a more reasonably priced, plug-in-and-play alternative.

Sound Crew cabinets were initially painted light grey and had metal corner pieces, but that finish was subject to serious signs of wear in short order. Within a few months, all Sound Crew cabinets were covered in grey vinyl and featured aluminum flight-case extrusion all around the outside edges.

Of course two-way and three-way PA "stacks" require crossovers, preferably the active electronic variety. Such things were on the market, but tended to be quite expensive at the time so Yorkville stepped in with the Sound Crew CR-2 and CR-3. These were rack-mountable active crossovers, the CR-2 being pre-set at 900 Hz and the CR-3 at 450 and 2500 Hz (slopes were 12dB per octave). For the more cost conscious there was the PCR-1 passive 1/2 crossover (horn rolloff below 1000 Hz at 6 dB/octave) and the VCU-1 volume control unit for horns. If you're counting, that's thirteen new products in the Sound Crew line alone.

On the resale front, MXR, based in Rochester New York, produced a prominent line of effects pedals and wanted Canadian distribution. Yorkville was pleased to oblige (19 new products). Then Berger, an American mic stand manufacturer, made a similar request and again Yorkville responded favourably (5 new products). Then someone at Yorkville suggested that certain parts be packaged and distributed to the shops for repairs or do-it-yourself speaker builders. Thus Sound Crew Stage & Audio Accessories became a reality (14 new products). What a year!!

1978

Huffing and puffing from the previous year's new-product marathon, Yorkville seemed to take a breather in 1978 although new Traynor products did appear. among them were two additions to the BW speaker line.

>The BW-3 (90 Watts, 8 Ohms) featured four of the #7385 8-inch column/monitor/guitar amp speakers and an RCF TW-105 tweeter in an unusual enclosure where the speakers were mounted in pairs to inward-angled baffles on either side of the tweeter which was mounted on a contrasting white center baffle.

>The BW-4 (45 Watts, 8 Ohms) was rather like half of a BW-3 with two 16-Ohm eights mounted on an angled baffle beside a white baffle to which the tweeter was mounted. Although these cabinets were covered in black vinyl, they had the new black grillcloth and metal corner pieces rather than the old chrome & rubber bumper stripping which was being dropped from production.

>The The X-2 and X-3 crossovers were cosmetically Traynorized versions of the Sound Crew CR-2 and CR-3 (see 1977). This made crossovers available to stores which did not handle Sound Crew.

>The YM-4 floor monitor (45 Watts, 16 Ohms) with two 8-inch speakers and a Motorola piezo tweeter was basically the YM-1 (see 1974) in the new grey-vinyl-covered, black-grillcloth format.

>Also clad in grey was Yorkville's *first rack-mountable power amplifier, the PM-100. As the name implies, this mono amp put out 100 Watts rms into 4 Ohms. It featured a gain control, a clip LED, and dual parallel 1/4" inputs and speaker outputs. The box could be removed so that the PM-100 could be mounted in a 19-inch rack.

>Some people had asked for a mixer/amplifier like the 6400 (see 1977) but with more channels and more power, thus the 12400 was developed. There were regular channels from #1 to #6, then two more, each with three XLR mic inputs and attenuator controls for all. This expanded mic input capacity to twelve. Other features were similar to the 6400 except the graphic EQ was 7-band rather than 6-band and power was 220 Watts rms into 4 Ohms.

>A new floor monitor, the MS-510, featured a pair of high-powered 10-inch, dual-cone speakers plus dual parallel inputs and a level control. No literature exists on this model as it was rather expensive and vanished within a year, however it's probably safe to guesstimate 100 Watts RMS and 8 Ohms as the vital stats.

>Finally, it was time for a new Mono Block speaker. The deal with Cerwin Vega was up and so a new twin-fifteen enclosure was developed, the 2150 (450 Watts rms, 4 Ohms). The speakers were designed by Larry McCabe at Yorkville and built by Eminence.

*(The YPM-2 circa 1969 was rack mountable, but only a dozen or two were built, strictly for Pete Traynor's concert sound contracting system.)

Being a keyboard player and physicist Eric Von Valtier took a somewhat more academic approach to designing guitar amps than someone who already knew about such things, perhaps to some considerable advantage as it turned out. After studying tube and transistor wave forms and sounds, Eric developed a solid-state preamp circuit which seemed promising. Dubbed the "Tri-Comp Network", this circuit promised to get around the problem of nasty-sounding distortion produced by square-edged solid-state wave forms (guitar amps have to distort in a nice-sounding manner). This was accomplished by the circuit splitting the input signal into three segments then adding compression to each band and finally mixing the segments back into one signal. On an oscilloscope, the resulting wave form looked quite alien - like a round-shouldered, three-tiered pyramid - but the sound was quite natural and not unpleasant at all even when turned up to maximum.

In his first amp, Eric included volume and master volume controls, bass, mid and treble tone controls, a 4-band rotary EQ and a 200-Watt power output stage. Then the whole works was mounted into a "head" style case with a small practise speaker built in. This was the Traynor TS-200 (200 Watts @ 4 Ohms @ 1% THD - the "TS" stood for transistor series). The aim was to make it marketable with two large speaker boxes for under \$1,000.00. Since those eight-inch PA speakers sounded so nice for guitar in the YGM-4 (see 1972), they and a similar speaker with a metal dustcap were built into a cabinet appropriately sized to take nine of them in total (five of the regular eights & four of the others) so that the total impedance per-cabinet could be 8 Ohms. This was dubbed the TS-98 (200 Watts rms, 8 Ohms). The TS-200 "stack" with one amp and two cabinets came out just in time to catch the X-mas buying season and did quite well at the time.

New resale products for 1978 included th M-580 mic, the KH-60 and KH-40 powered headphones and the Altair PW5 power attenuator, a gadget for reducing the loudness of guitar speakers when the amplifier doesn't have a master volume control.

1979

The TS series grew by five products in 1979. The TS-25 (*25 Watts at 8 Ohms) and TS-50 (50 Watts @ 8 Ohms) were guitar combos, each with a 12-inch speaker. The TS-25 featured a boost switch, gain, bass, treble, reverb and master volume controls. The TS-50 had similar features plus a middle tone control. The TS-25B bass combo, (25 Watts at 8 Ohms) had the same features as the TS-50 minus the reverb control and featured a 15-inch speaker. The TS-50B bass head (50 Watts @ 8 Ohms) shared the TS-25B's features and was introduced along with the TS-215, twin-fifteen enclosure (80 Watts rms, 8 Ohms).

**About amplifier power ratings now:*

Eric Von Valtier repaired Yorkville's distortion analyzer so that power ratings could now be expressed with distortion figures. In the case of TS amps, 1% total harmonic distortion was standardized which was quite low compared to the competition's 5% ratings, ergo you tended to get more sound out when TS amps were turned up full than amps with outwardly similar power ratings. What about the old sine-wave "rms" ratings? TS amps didn't put out sine waves when you turned them up, they put out pyramid-shaped waves thanks to the Tri-Comp network, but more importantly, with the analyzer working, real harmonic distortion figures could be specified, not only for the TS series but for all products.

The process of bi-amping speaker systems requires separate amplifiers for the low and high-frequency components and a crossover to split the audio signal into those two frequency ranges - three separate units altogether plus a rat's-nest of interconnecting cables. It was suggested that this could all be designed into one product and that's what Eric did. The X-3000 stereo bi-amp (300 Watts @ 4 Ohms x 2, plus 150 Watts @ 4 Ohms x 2) resembled a PS-600 on steroids. In fact it contained the equivalent of two PM-300s (see 1977), plus two PM-100s (see 1978) and a stereo 2-way crossover with internal plug-in modules to set the crossover frequency. Each of the four amplifiers had its own pair of 1/4-inch inputs plus a pair of 1/4-inch outputs so that they could all function separately if so desired. Then there were 1/4-inch left and right bi-amp inputs and 3-pin XLR bi-amp speaker outputs. A special speaker cable with XLRs on each end, the TCL-31, was required to connect the X-3000's bi-amp outputs to its companion product, the BW-23 (250 Watts, 8 Ohms). This was a 3-way speaker enclosure featuring the same 15-inch woofer and horn as the BW-1 (see 1977) plus three horn-loaded tweeters passively crossed over. The connector panel featured both male and female XLR bi-amp inputs plus dual 1/4-inch low-frequency "in" jacks and dual high frequency "in" jacks. There was also a passive/bi-amp switch enabling the user to power the cabinet with a standard amplifier via one of the "lo in" jacks (there was a full passive crossover built in too).

Worth brief mention here is first appearance of the Yorkville Sound Parts Catalogue. Brainchild of sales dept. employee Mike Holman, this publication appears to have been something of a "first" in its own right. Certainly it was the most extensive electronic component listing produced by an amplification company back then. It is still maintained and continues to assist repairmen everywhere.

1980

This year, new product development seemed almost solely aimed at the TS line.

>Small but surprisingly big-sounding, the TS-15 (15 Watts @ 4 Ohms) featured two eight-inch speakers, volume, bass and treble controls, and a 3-position master volume switch.

>The TS-75 (75 Watts @ 8 Ohms, 120 Watts at 4 Ohms) was a guitar combo with an unusually rich-sounding 15-inch speaker. Normally fifteens cannot reproduce the essential high frequencies for lead guitar, but this one - an RCF model L15P02 - was an outstanding exception. TS-75 features included dual sets of high and low gain inputs, gain, middle, bass, treble, reverb and master volume controls, gain boost and bright switches plus a 6-band graphic EQ which could be footswitched in and out. It also had a balanced XLR line output, a first for Yorkville, and there was a matching extension speaker, the TS-75ES (100 Watts, 8 Ohms) with the same speaker as the combo in a ported enclosure of similar dimensions.

>The TS-100 (120 Watts @ 4 Ohms) was a twin-twelve guitar combo with two channels, each with high and low gain input jacks. Channel one had volume, bass and treble controls. Channel two had those controls plus middle, reverb and master volume controls, switches for gain boost and brightness and a gain boost footswitch jack.

>The TS-140 (140 Watts @ 4 Ohms) was also a twin-twelve guitar combo with two channels and control features similar to the TS-100, but there were additional features. The TS-140 had two master volume controls and the boost footswitch designated which one was in use. As well, there was a six-band graphic EQ with an in/out footswitch jack, a balanced XLR line output and the simple channel was tucked away on the back panel (no room on the front). The speakers, designed at Yorkville by Larry McCabe (see 1969), were high-performance with large magnets, 3-inch diameter voicecoils and aluminum dustcaps. Users commonly stated, "You can NOT turn this amp even close to all the way up." Actually, the output stage had nearly 200 Watts of power headroom and the speakers could handle it so these people were probably right.

>The TS-120B (75 Watts @ 8 Ohms @ 1% THD) was a bass combo with a high-performance fifteen-inch speaker and most of the TS-100's control features except for reverb. An extension speaker, the TS-120BES (100 Watts, 8 Ohms) contained the same speaker and, when added, upped the amp's power to 120 Watts.

>The TS-115 (100 Watts, 8 Ohms) was a single-fifteen cabinet added as a more compact alternative to the TS-215 (see 1979) for use with the TS-50B.

>And finally, there was the MS-110 stage monitor (50 Watts, 8 Ohms) which featured a dual-cone ten-inch speaker and a volume control.

1981

Steve Long, Jack 's eldest son, had been working at Long & McQuade largely on a part-time basis. Now he began working at Yorkville full-time with his duties centered on production. Over the following years he would progress to production manager, then to general manager and finally to president. His astute, level-headed approach to management would be of great benefit as Jack eventually shifted his focus back to Long & McQuade.

Henry Balaban (see 1976) drove an old Plymouth Valiant. When designing a new line of high-performance PA speakers in 1981, Henry used the Valiant's back seat to ensure that his creations would fit into a compact car - not pure science, but effective. He then dubbed them "CS" for car seat. The grey vinyl covering highlighted by aluminum edge-extrusion established for Sound Crew in 1977 was adopted for this line and the grills were black metal mesh, a feature which would be standardized on future products. All enclosures were reflex type with ports that were ducted in the single-woofer models. Woofers were Eminence and tweeters or horns were Foster in all models except the CS-150H.

Model designations basically tell you what's in the cabinet, eg. CS-110T contains one ten inch woofer and a tweeter (T for tweeter, H for horn). The tweeter was 3" x 3" with an aluminum bullet and the horn was 4" x 10" all-metal . That said, here's a listing of models with power/impedance/*frequency range specs:

CS-110T (40 Watts/16 Ohms/80Hz-16kHz), CS-112H (50 Watts/ 8 Ohms/75Hz-16kHz), CS-210H (80 Watts/8 Ohms/75Hz-16kHz), CS-1012H (100 Watts/ 8 Ohms/70Hz-16kHz), CS-120H (150 Watts/ 8 Ohms/70Hz-16kHz), **CS-105H (100 Watts. 8 Ohms/75Hz-16kHz), CS-115H (175 Watts/8 Ohms/65Hz-16kHz), CS-212H (200 Watts/8Ohms/65Hz-16kHz). CS-150H (one fifteen-inch RCF L15/554, an RCF H3709 horn and an Emilar EC (or EK)175-30 compression driver: 200 Watts, 8 Ohms, 60Hz-16kHz)
CS-4T a 4-tweeter high-frequency unit replacing the YSP-1 (100 Watts, 8 Ohms)

There were also two monitors :

MS-110 (50 Watts, 16 Ohms)

MS-112H (80 Watts, 8 Ohms)

*This series marks the first time frequency response specs of any kind were published by Yorkville.

**CS-105H had a 15" woofer - this is not self-evident from the model number. The model was introduced later on as a lower-priced fifteen+horn alternative to the CS-115H.

>The TS-412 guitar cabinet (4 x 12" speakers, 160 Watts rms, 8 Ohms) was designed for use with the TS-140H (140 Watts @ 4 Ohms), a "head" version of the TS-140 combo (see 1980) which saw limited production in 1981.

>The TS-120BH (120 Watts @ 4 Ohms) was a head version of the TS-120B bass combo (see 1980) and its matching cabinets were the TS-115, TS-215 and, new for this year, the TS-410 (4 X 10" speakers, 140 Watts rms, 4 Ohms).

>The TS-60B (50 Watts @ 8 Ohms, 1 x 15" speaker) was a bass combo which featured dual inputs, gain, bass, middle, treble and master volume controls, also a four-band graphic EQ with bypass footswitch jack and a balanced line output.

Yorkville had been using more and more of the Italian-made RCF horns, compression drivers and speakers in production. Hence it must have seemed logical to RCF back in Italy that Yorkville would make a good distributor, something they didn't have in Canada at the time. Yorkville agreed to distribute a limited number of their products - basically just the ones being used in production - and that's how things remained for the next seventeen years.

Other resale lines added in 1981 included Elephant speaker stands and a small selection of German-made Beyer microphones (Yorkville and AKG had parted company earlier). Image was a brand name created by Yorkville's Doug Davies. Doug was working into the role of sales manager now and had lined up a manufacturer in the Orient who made microphones in a very reasonable price range. There were other products and accessories which would be added to the Image line over the next decade and a half.

1982

A very dry year for new manufactured products, however there was one , the Quad 12 non-powered, four-track recording mixer. Control-wise, it looked a little like two 6401's (see 1977) placed side-by-side with a pan control added to each channel and two monitor master sliders between the two sets of six channels. There were also left and right LED level meters - a first on Yorkville products - a set of four playback assign switches plus an on/off switch for this section, patching facilities for each input channel, separate EQ and effects patching facilities for both the left and right main channels, dual eight-band graphic equalizers, balanced XLR left and right main outputs, four record out jacks and four playback in jacks.

There were more features but these are the main ones. Oh yes, another feature is worth mentioning, the owner's manual. It was thirty-three pages long (gasp!). Quad-12 lasted until the following year when new mixers were introduced, and so were new designers. This would be Eric Von Valtier's last product for Yorkville. He eventually left to establish a consulting firm, taking with him Paul Ierymenko, a new, promising designer.

One more new product was manufactured in 1982, the RVS-III keyboard combo. This was basically the TS-75 (see 1980) with built-in RVS effect (see 1977). A new product yes, but composed of existing ones. It too was gone by the following year.

Resale lines did not increase in 1982 but products within those lines did. Image grew by two items, the IPM-240 and IPM-24T mini stage monitors. Attached to the top of a mic stand, they could deliver sound almost directly at the performer's ear. And if they got knocked over, no problem - the cases were cast aluminum. And MXR added their Commande Series to the effects pedal lineup. Plastic "stomp" pedals in a world of metal ones? Not a recipe for success as it turned out.

1983

Mike Holman (see 1976) had gravitated to advertising in recent times, not always an easy gig considering that Yorkville's magazine ad placement had previously been zero. But this occasion was just too noteworthy - it was Yorkville's twentieth anniversary. Mike wrote up a proposal with sketched ad concepts and a budget, all of which was presented to Jack Long. With a few suggestions but no serious reservations, Jack accepted it. Thus began Yorkville's slow emergence into the limelight.

Everyone's favorite ad concept, at least around Yorkville, pictured an elephant evidently being knocked over by sound from a CS-115H speaker (see 1981). The final layout, photographed with a trained elephant at African Lion Safari in Ontario and placed just once in *Guitar Player* magazine, was a wee bit too realistic for some animal activists. A few of them complained bitterly and Yorkville, loathe to offend even this group of fringe-dwellers, withdrew the ad. Fortunately the rest of the ads and those which have followed seem to verify the value of advertising.

New products for 1983 included the 8201 and 12201 stereo mixers. Here, for the first time, Yorkville was producing mixers with slide level controls. Two designers, Mark Bethke and Juergen Hesse, developed the products. Channels featured input clip LEDs (Yorkville's first), gain controls, monitor, reverb and effects send sliders, three-band channel EQ (Yorkville's first) pan controls and the aforesaid level slider. LED level meters, dual ten-band graphic equalizers and a full set of masters rounded out the feature listing. They had no built-in power but could be used with a PS-600 or X-3000.

Yorkville had been building Martin PA speaker enclosures for a year or so. Martin is a British company who design high-performance speakers and manufacture them for various markets. Due to the high cost of shipping these heavy boxes across the Atlantic, Heint Electronics, then the Canadian distributor, chose to have them built locally with Martin's permission and Yorkville had obliged. Now, after building Martin for a while and having gained some experience in sourcing the essential 13-ply Russian birch, Yorkville decided to design their own high-performance "stack". These products were added to the Sound Crew line and were named simplistically:
The Bass (250 Watts rms, 8 Ohms) with a single 15-inch RCF L15P06, was a compact folded horn.
The Mid (250 Watts, 8 Ohms) was an exponential midrange horn with a 12-inch RCF L12P11C.
The Horns were Horn 1 - an RCF H3709 horn with a one-inch Emilar EK175 high-frequency driver, and Horn 2 - an Emilar EH-20, 2-inch horn with matching EC-320A compression driver. The wedge monitor was - you guessed it, The Wedge, and a regular cabinet to be used as a side-fill monitor was - yes, The Fill (you catch on so quickly). Both featured an RCF L15/554 15-inch woofer, an aluminum RCF H3709 horn and the Emilar EK175 driver from Horn 1.

1984

There was good news and bad news. Bad news was, Eric Von Valtier's consulting operation didn't work out and he returned to the U.S.A. Good news was, Paul Ierymenko (see 1982) was back, knocking at Yorkville's door with a mixer design under his arm. The mixer looked promising but more importantly, so did Paul - Yorkville needed a head designer.

It was concluded that Paul's mixer was sufficiently advanced to warrant a brand new brand name. Thus "Audiopro" was born. The AP-16S, 16-channel mixer was loaded with features including 100-millimetre slide controls, 4-band channel EQ with midrange sweep (the first ever featured on a Yorkville mixer), channel activity LED's (another first) and on-off (mute) buttons (a third first), dual monitor send controls, dual effects send controls (first number four), an input gain control and clip LED on every channel, balanced XLR inputs and outputs (first number five) and dual LED "ladder" level meters. Even a tunable test tone (first number six), a gooseneck light socket (first number seven) and a fold-down padded armrest were included. Specifications were impressive and, best of all it could be priced around \$2500.00 which was very reasonable at the time.

Paul also designed power amplifiers. Popular audio technology of the day involved something called the "metal oxide semiconductor field effect transistor" a.k.a. "mosfet". Paul said that he could design an amplifier which incorporated these devices, but in such a way as to minimize their effect on the cost of the product (mosfets are very expensive). His design used lower-powered versions of these devices to "guide" the output transistors which could then be regular bipolar devices. More impressive was the power - 1200 watts!

This rack-mount power amp was dubbed the Audiopro MOS-1200 (600 Watts per channel into 2 Ohms). Its power and reliability were demonstrated one day by Yorkville lab technicians who playfully wired its speaker outputs to weiners and cooked "mosdogs" for lunch. Away from the "kitchen" the MOS-1200 quickly proved to be a popular product with specifications that rivalled the best and a price that didn't (around \$1500.00).

Paul's next amplifier would be less powerful, but used 100% mosfets - the MOS-500 (250 watts per-channel into 4 ohms). And finally there was the Audiopro AX-3. This was a three-way, studio-quality electronic crossover. Specifications included 24dB per-octave rolloff slopes and frequency tune controls accurate to within one sixth of an octave.

New Traynor products for '84 included the Bloc series of instrument amplifiers. Compact, cube shaped amps were being produced by a few companies and various customers suggested that a Yorkville line of this type would sell well. As it turned out, they were right. The initial Bloc lineup and features were as follows:

Bloc-50G: guitar amp, two input channels; the A channel with gain and volume controls plus an EQ bypass button. B channel features included gain, bass, mid and treble controls. Masters included volume and reverb controls plus a channel switching button which could be bypassed by the channel switching footswitch. There was also a headphone jack which bypassed the built-in speaker for practising, a line (preamp) level output jack and effects in & out jacks for connecting an external effects unit. 10" speaker, 50 watts.

Bloc-100G: guitar amp, same features as the 50G. 12" speaker, 100 watts

Bloc-40B: bass amp, dual inputs, volume, bass, mid, treble and master volume controls. Line out and speaker-defeatng headphone jacks. 10" speaker, 40 watts.

Bloc-80B: bass amp, same features as the 40B. 15" speaker, 80 watts.

Later in 1984, two models were added:

Bloc-20G: guitar amp, dual inputs, overdrive, bass, mid, treble, reverb and master volume controls plus a speaker-cancelling headphone jack. 10" speaker, 20 Watts.

Bloc-100GT: guitar amp, same features as the 50G (see above), two ten" speakers, 100 watts.

The Traynor YSC-10 (see 1976) was due for replacement. Tom Lever who headed up the woodshop, decided to try his hand at designing and came up with an interesting enclosure dubbed the Trijector (600 watts *pgm, 8 Ohms). There was a heavy-duty 15" Eminence speaker housed in a folded-horn bass section suspended on pylons under an aluminum RCF horn and driver and two Foster tweeters. There were also bi-amp inputs in addition to the regular ones. A companion product, the Extender (600 watts pgm, 8 Ohms) was fundamentally the bass section of the Trijector. With one stacked atop the other, they made quite an impressive system.

*(This marks the first appearance of "program" power ratings for Yorkville speakers. See 1963-64 for details.)

Another speaker was added in 1984, the MS-115H floor monitor (100 Watts, 8 Ohms).

The Traynor 8201 and 12201 stereo mixers (see 1983) received built-in power in the latter part of 1984 thus becoming the 8200 (200 watts per channel into 4 ohms) and 12200 (ditto). These were Yorkville's first stereo powered mixers. They may have been somewhat overweight and oversized by today's standards, but so were all the others back then.

In the resale field, made-in-Japan Tokai guitars and accessories were added as well as the Korean-made Applause guitars marketed by Kaman Corpn. (a.k.a. "Ovation") in the USA. Kaman needed Canadian distribution for the Applause line and Yorkville was their choice.

Finally, two products were added to the Sound Crew line in 1984, the Rack-10 and Rack-15. These were rack-mount cases with removable front and back panels and wheels.

1985

George Krampera could speak enough English to make himself more or less understood. He, his wife and their child had escaped from behind the Iron Curtain a few years earlier and thereafter travelled to western Canada. Now he was at Yorkville Sound looking for a job. During an interview with the bearded Czech, lab chief Paul Lerymenko concluded that George was probably way over-qualified to be employed as a repairman and there didn't seem to be much of an opening in R&D. That might have been the end of it, however George spotted a Bloc-100G guitar amp and commented that back home in Czechoslovakia he had hot-rodged similar amps from another manufacturer to provide a better rock & roll sound. If there was one thing lacking in the early Bloc guitar amps, that was it. Paul invited him to show what he could do and shortly George presented him with a really good-sounding amp. George was promptly hired and his circuit modifications were adopted for all future guitar Bloc production.

Yorkville's success with the RVS line in the 1970s had made it clear that there was a need for genuine keyboard amplifiers, not just modified guitar or bass amps as had been offered by other manufacturers. The Bloc line needed a keyboard amp and George Krampera's first full design assignment was to come up with one. This he accomplished on Yorkville's newly acquired CAD-CAM software. The resulting Bloc-100K (100 watts into 8 ohms) was virtually perfect right out of the "box" - Yorkville's first computer-assisted design. Features included three input channels each with a separate volume control plus bass, mid, treble and reverb controls on channels 2 & 3, a master volume control, a built-in limiter circuit to control distortion (a Yorkville "first"), a clip indicator, dual effects loops, a balanced line out jack and a headphone jack which disconnected the built-in 15-inch woofer and horn-loaded tweeter for silent practising. A success story right from the start, Bloc-100K would remain in production for nearly fifteen years. Only the YBA-1 exceeded that record.

With the Bloc-100K completed and off to a good start, Paul asked George what else he would like to design. George's reply went something like this, "I like mehk leettle speakers mehk beeg sound." George was given the go-ahead and, a few weeks later, demonstrated a small prototype PA enclosure with a ten-inch RCF woofer and an aluminum RCF horn/driver. There was also a black-box electronic processor to regulate the amplifier. Comparisons with competitive products were impressive so George happily set about making what he termed, "Leettle bit beeger, kick-ess speaker". Not long afterward he demonstrated another prototype, this one featuring two ten-inch RCF woofers with huge magnets, an RCF horn with a large driver and an electronic processor. The results were awesome. Not only was there nearly 130 decibels of sound pressure from this compact box, the sound quality was equal to even the higher-priced competition - better in some cases.

Thereafter it was concluded that George should design a premium line of speakers like these. The look would be all-new with black Ozite indoor-outdoor carpeting as a covering material. An empty speaker box was thusly covered and placed on the roof to weather the winter months (Ozite covering was new to Yorkville and there were concerns that it might come unglued - it didn't). Also new were the built-in passive crossover networks. These ones featured 18dB-per-octave rolloffs for better driver control and a clever circuit which protected the horn by shunting excess high-frequency power to a lightbulb which could safely dissipate the power without immediately burning out like a fuse. If the over-power was excessive, the bulb would burn out instead of the more costly horn diaphragm.

There was also a circuit breaker to protect the woofers and another crossover feature worth mentioning, XLR inputs. Not really intended to dupe the novice into plugging in a microphone there, the XLR was included on the MX-1000 along with two standard 1/4" jacks to provide a high-power input. These three-pin connectors can actually handle more current than a 1/4" jack and it was clear that applied *power levels were going to be increasing.

*A company in Switzerland named Neutrik became so convinced that speaker connectors were in need of re-thinking, they began the design of a special one which would be ideal for the application. Years later their "Speakon" plug & socket system would become the world standard and be featured not only on Yorkville's high-powered speakers, but power amplifiers and eventually mixer/amplifiers.

This, it was decided, would be called the Elite line and each enclosure except for the largest ones would come with an adaptor for mounting it to a speaker stand. Additionally, the SW-600 subwoofer featured a stand adaptor on top so that a pole stand could be inserted between it and the full-range cabinet above. Introduced late in 1985, the Elite line consisted of the following models:

*Micron 160 (M-160) - 1x10" RCF L10/581 woofer, 1x0.75" RCF N252 horn & driver, 160 watts pgm, 8 ohms, fr.= 65Hz-19kHz, *eff. = 99dB, *max.cont.spl = 118dB*

Micron 400 (M-400) - 2x10" RCF L10/500 woofers, 1x0.75" Beyma CP25 horn & driver, 400 watts pgm, 8 ohms, fr.= 60Hz-20kHz, eff. = 100dB, max.cont.spl = 123dB

Micron 600 (M-600) - 2x10" RCF L10/750 woofers, 1x 1" RCF H2009 horn and N481 driver, 600 watts pgm, 4 ohms, fr. = 50Hz-16kHz, eff. = 103dB, max.cont. spl = 130dB

Spectrum 400 (S-400) - 1xRCF L15/541 woofer, 1x10" Beyma G150 midrange speaker and Beyma CP25 0.75" horn & driver, 400 watts pgm, 8 ohms, fr.= 55Hz-20kHz, eff.= 97dB, max. cont.spl = 123dB

Note: Spectrum 400 was an attempt to combine hi-fi sound with PA applications. There had to be compromises - efficiency and maximum sound pressure - but they worked really well for small clubs.

Maxim 1000 (MX-1000) - 2x15" RCF L15K80Y woofers, 1x 1" RCF H3709 horn and N481 driver, 1,000 watts pgm, 4 ohms, fr.= 55Hz-19kHz, eff.= 103dB, max.cont.spl = 133dB

Subwoofer 600 (SW-600) - 1x18" RCF L18/851 woofer, 600 watts pgm, 8 Ohms, fr.= 50Hz - 1.4kHz, eff.= 100dB, max.cont.spl = 127dB

**This marks the first appearance of efficiency (sound pressure measured at a distance of one metre with one watt applied) and maximum continuous sound pressure level ratings.*

New resale lines for 1985 included Dean Markley strings, Rocktron signal processors and another line of signal processors, this one from ART - Applied Research & Technology in Rochester New York. ART had arisen from the ashes of MXR who went out of business the previous year.

Doug Davies - later to become sales manager - introduced a line of microphones and accessories under the Image brand which had been established after an in-house name-the-line contest. Products were made in the orient to Yorkville's specifications, a practise which continues on various smaller products to the present.

1986

Three additions to the Elite line debuted in the late summer of 1986. People looking for a larger, louder subwoofer to go with the MX-1000 (see 1985) were treated to the SW-1000 (1000 watts pgm, 4 ohms). Twin 18-inch RCF L18/851s loaded into a reinforced reflex enclosure on tilt-back wheels could move air all the way way down to 45Hz. Maximum spl was 130dB. Stage monitors were also added to the Elite line. The M-160M (160 watts pgm, 8 ohms) and M-600M (600 watts pgm, 4 ohms) were, as the names imply, monitor versions of the Micron 160 and 600 from 1985.

There were requests for one or two Yorkville speakers in woodgrain cabinets to satisfy certain installation requirements. Based respectively on the CS-112H and CS-105H (see 1981), these were introduced in 1986 as the RW-112 and RW-115. And there were new power amps for 1986. The Beta-800 was introduced in January. It was stereo, rack mountable, fan-cooled and put out 400 Watts per-channel into 4 Ohms. Later in the year the Beta-150 and Beta-150EQ went into production. These were mono power amps, also rack-mountable with passive cooling and rated at 150 Watts into 4 Ohms. The "EQ" model, as you probably guessed, had a built-in graphic equalizer - ten bands +/- 12dB.

Since the most powerful bass combo, the Bloc-80B, was less than 100 Watts, a more powerful unit was in order. The Bloc-250B filled that bill and more. At 175 watts into 8 Ohms and 275 Watts into 4 Ohms it was clearly the most powerful combo Yorkville had ever produced up until that time. It was also loaded with new features. Aside from a heavy-duty 15-inch, 200 Watt, 8-Ohm Eminence speaker, there were dual input jacks, each with its own volume control and there was a pushbutton to select between them so that two basses could be connected (for bassists who use more than one instrument and like to leave them turned up). There was also a set of three input gain LED's to help the user set the gain controls to optimize the sustain control for holding long notes without distortion and there was a built-in, pushbutton-activated limiter to further ensure clean performance. Tone controls included bass, low mid, mid, treble and presence, and there was a fully parametric EQ frequency, sweepable from 100Hz to 4kHz with cut/boost and "Q" controls and its own gain control. Finally there was a master volume control, a balanced XLR line output and effects patching jacks. A head version of this, the Bloc-250BH, went with a single-fifteen enclosure, the Bloc-115B (200 Watts, 8 Ohms) and there was a lower-powered single-fifteen combo, the Bloc-150B (150 watts @ 4 Ohms) with many of the big amp's control features. These products were distinctive by virtue of another feature - no Traynor logo. Instead they bore a square, black plastic logo with a stylized "YS" motif in raised red lettering. Within two years everything, including the other Bloc amps, would have this Yorkville logo. The Traynor brand would then vanish for a while.

Also wearing new YS logos were the YS-112 (100 watts, 8 Ohms) with a 12-inch woofer and high-frequency horn and the YS-115 (150 watts, 8 Ohms) with a 15-inch woofer and high-frequency horn. Unlike the CS series PA cabinets, these had rounded edges and corner pieces. They also featured flush-mount speaker stand adaptors and sold for less than their CS equivalents (CS-112H & CS-105H). YS-112 and YS-115 would turn out to be the vanguard products of the Performance Series which would remain in production throughout the 1980's, the 1990's and beyond.

Henry Jusciewicz purchased Gibson in 1985 and was now looking for Canadian distribution. Ownership of the ninety-year-old guitar brand had passed, first from the original owners to Chicago Musical Instruments in the late 1950s, then C.M.I. had sold it to Norlin Corp. in the early 1970s. Now Henry was rescuing Gibson as he had done with other ailing companies and approached Jack Long at the 1986 NAMM Expo to pop the question.

Jack asked for time to consult with Long & McQuade personnel. Among other things, they expressed concerns about the products' quality control. A combination of high prices and low QC throughout the seventies and early eighties had nearly sunk Gibson, meanwhile stores like the various L&M locations had been obliged to deal with numerous dissatisfied customers. Henry assured Jack that upgrading quality was his first job. Toward that end, he had virtually shut down the famous Gibson custom shop and put most of its luthiers to work walking the lines, eyeballing every stage of production. This and other intelligent-sounding measures made Jack's decision easier. By summer 1986, Yorkville Sound was the Gibson distributor for Canada.

With Gibson came Epiphone, an old American guitar brand which Gibson's owners had purchased in 1957. Initially, as the remaining bits of actual Epiphone stock were sold, those models were replaced with similar Gibsons bearing the Epiphone logo and perhaps different pickups or finish details. That way CMI could market

two lines, Gibson and Epiphone, with the Epiphones offered at slightly lower prices. This remained in effect throughout the sixties then, in the early 1970's, Epiphone production went to a factory in Japan.

Now that Henry Jusceiwicz owned Epiphone, he had located a factory in Korea and was in touch with others in the orient to produce a new Epiphone line, this one to contain models which were similar to the old originals in some cases, and to popular Gibson models in others. This turned to be a winning formula, especially when the overall build quality was surprisingly high while the prices were very reasonable.

1987

1987 marked the introduction of *Micromix*. Paul Ierymenko designed an advanced stereo mixer and a 250-Watt-per-channel stereo amplifier then put them together. Voila - the Audiopro *Micromix SP-8* (8 channels stereo, 250 watts x 2, fan-cooled), soon to be joined by the *SP-12* (12 channels, same power). Both powered mixers were compact, console-style affairs with slick blue cosmetics, colour-coded knobs and loads of features. Each input channel had a gain control and clip LED, a monitor level control, 3 bands of EQ, an external effects level control and another for the internal effects system, a pan control and a slide control for main mix level. Masters included two ten-band graphic equalizers - stereo for the main PA and mono for the monitors - a stereo reverb/echo (a "first" for Yorkville), dual LED level meters and a pushbutton which enabled you to power the main speakers with one of the built-in amp channels and monitors with the other (another "first" for Yorkville). Naturally there were the usual master faders for sub 1 and sub 2 (left & right), one for monitors and another for the mono line-level output which resulted when the afore-mentioned pushbutton was depressed blending the sub 1 & 2 signals into one. Whew! Oh, and one more thing - a full-time stereo limiter in series with the power amp ensured that distortion would be minimal even under worst-case conditions.

A power amp was spun-off from the *SP-8* & *12*, the Audiopro *AP-500* (250 Watts per channel @ 4 Ohms). This was a rack-mountable unit with input level controls and clip LEDs, an internal fan, a non-switchable limiter, XLR and 1/4-inch inputs and binding-post outputs. Like the *MOS-500* (see 1984) which it replaced, the *AP-500* was all black. This would be the first in a series of products - the *AP* power amplifiers - which would remain in production throughout the rest of the 1980s, the 1990's and beyond. Also spinning off were the *S-8*, *S-12* & *S-16*, non-powered mixers. These were functionally identical to their powered progenitors.

With Paul's new PA products off to a good start, it was George Krampera's turn to create something new for instruments. Since he had been so adept at getting a good sound from the *Bloc-20G*, *50G*, *100G* & *100GT* (see 1984), it seemed like a good idea for him to design a top-of-the-line guitar amp. This was the *Rockbloc* (90 Watts @ 8 Ohms). It featured a clean channel, a channel with dual gains and dual master volumes with footswitching between them, bass, mid and treble controls on both channels, digital delay for echo effects and a separate spring reverb which could be blended with the echo. The speaker was a 12-inch "Medusa" made by Fane in England. The *Rockbloc* was indeed an excellent guitar amp, but it was in a fairly high price range which was loaded with competition. It remained in the line until late 1991. Another *Bloc* was added by designer Mark Bethke, the *Bloc-40K* (40 Watts @ 4 Ohms). Based on the *Bloc-40B* bass amp, this keyboard amplifier contained a tweeter for the high frequencies. Controls were simple - volume, bass, mid & treble. There was a speaker-cancelling headphone jack and a line output.

George also designed the *Beta-500* (300 Watts @ 4 Ohms). This was a mono power amp which replaced the *PM-300*.

The *Image* line (see 1982) grew by several items when effects pedals were added in 1987.

1988

By now there were several Long & McQuade locations stretching from Toronto right across the prairies to the Pacific ocean, all doing very well. But the flagship store on Bloor Street seemed to be suffering from a case of the bulges. After fifteen years it was becoming painfully evident that the old Starkman's building near Spadina could no longer contain the operation. L&M had always rented their premises, but now there were stores in the chain that were wholly owned and ownership seemed to have its benefits. Perhaps the new flagship location would benefit as well.

Torontonians in the fifty-plus age bracket will recall those days back in the early sixties when Ronnie Hawkins & the Hawks (later to break away and become "The Band"), rocked the rickety floorboards at a joint on Bloor Street West called the Concord Tavern. Well it seems the old Concord was for sale. The price, after negotiation, was right and Jack signed on the dotted line. Then followed one of the most extensive renovations that any retail shop has ever undergone. Before it was over, Fred Dulligal - a long time L&M employee and friend of Jack's - and one other workman, had literally gutted the old three-storey building, stripping it down to the bare brick walls and even tearing out the floors. But when it was finished with touches provided by a professional designer, it was a thing of beauty and roomy enough to hold everything and everybody - for a while at least (within nine years the two-storey shop next door would be acquired to house guitars alone).

Over at Yorkville, consumer requests for a compact single-fifteen + horn cabinet in the Elite line prompted a response in the form of the MX-401 (400 watts pgm, 4 Ohms). A 4-Ohm version of the RCF L15K80Y woofer from the MX-1000 (see 1985) was paired with a Beyma CP-350 1-inch compression driver coupled to an RCF H9041 horn. Here again a winning formula seemed to have been established. With a few modifications, some re-styling and re-naming, this speaker would prove to have a long life, remaining popular right through the 1990s and into the new millenium.

The YS-110 (80 Watts pgm, 8 Ohms) was a compact, ten-inch + tweeter addition to that line along with a floor monitor version - the YS-110M - and a floor monitor version of the YS-112 (see 1986), the YS-112M. The idea of adopting existing products as the basis for floor monitors is often a good one. So good in fact that the Bloc-40K keyboard amp (see 1987) was adopted resulting in the Bloc-40W (the "W" stands for "wedge", a reference to the product's shape).

The Bloc series had been around for a few years and done well, however there were some requests for amps with control panels at the front (Blocs had all the controls and jacks at the back - very compact but a little hard to use). The first in this new series - called Stage for the time being - was a keyboard amp. The Stage K-90 (90 Watts @ 4 Ohms) featured 3 input channels each with a 1/4" input jack and gain control, two channels also had bass and treble controls. Masters included volume and reverb controls plus a line out jack and effects in & out "loop" jacks. Sound was provided by a 12" woofer and a tweeter.

In the PA electronics field, a new mixer/amp, the MP-4 (140 Watts @ 4 Ohms), made its debut in 1988. This was a very basic unit in terms of controls - volume on each of the four input channels, plus masters for bass, mid, treble and volume. There were both 1/4-inch and XLR connectors on each channel, also preamp out and power amp in jacks and four speaker jacks. That was it except for the fact that it was rack-mountable and came in a removable wood case. While it's hard to imagine something so simple having enough demand to last for very long, you have to realize that, starting with the YVM-1 Voice Master in 1966 and then the YVM-2 Voice Mate in 1969, this kind of basic product had been around for twenty-two years. It should come as no surprise therefore that this particular model prevailed throughout the nineties and beyond, that is, with a slight name change. An American competitor pointed out that they had already named a product "MP-4" and so Yorkville re-named this one MM-4. Thus it remains.

The MP-8 was a mono "box mixer". Why "box" mixer? To differentiate from the other kind which are called "console" mixers, also because they have so many controls down the front (unlike an MM-4) that they stand tall enough to look like a box. Indeed the MP-8 was loaded with features. Each of its eight input channels had a level control, a Clip LED, bass and treble EQ controls, a monitor send control and a reverb/effects send control as well as both 1/4-inch and XLR inputs. Channels 7 & 8 were combined into one so that a stereo input signal, perhaps from a tape deck or CD player, could be connected. On those channels, the 1/4" jacks were replaced by RCA (phono-type) jacks to accomodate tape deck/CD cables and there was a single set of bass/treble EQ, monitor send and reverb/effects controls for both channels. However there were separate channel 7 & 8 level controls

either for left/right blending (the MP-8 was a mono unit, not stereo, so stereo inputs signals got mixed into a single mono mix) or to control two microphones (there were two XLR inputs). Master controls included main and monitor volume, main and monitor reverb/effects and an eight-band graphic equalizer. Master connections included main send and return jacks, monitor send and return jacks and effects send and return jacks.

But the most unusual feature, and a "first" for Yorkville, was the fact that this mono mixer had two (150 Watts @ 4 Ohms) amplifiers built in and a 3-position master switch to select whether both amps were assigned to the main bus or both to the monitor bus or one to each. The only difficulty was that the occasional user might think the mixer was stereo because of the two amps - a quick explanation usually got them back on track. Versatile and well-priced, the MP-8 roared onto the market where its later incarnations remain to this day.

Resale products (things that companies sell but do not actually build) continued to multiply in the Yorkville inventory. As existing suppliers came out with new products and new suppliers approached the company, the purchasing of resale items and the process of dealing with these suppliers was becoming a major issue. Doug Davies, who had functioned for a few years as Yorkville's sales manager and then left to start his own music store, was back at Yorkville having sold the shop to Jack Long (this became the Scarborough Long & Mcquade store). Doug was the natural choice to assume the role of resale buyer and did so with little fanfare but great effect.

1989

The CS series PA cabinets were now eight years old and still bore the Traynor brand. It was time to replace them and the job of designing a new line went to Bill Woods. Bill operated as an independent speaker designer and consultant whose "Woods" enclosures were marketed by Long & McQuade. It was agreed that Bill would work at Yorkville one or two days a week and at home the rest of the time (as of year 2001, that's how it still worked). This established, he began work on the new line which, it was decided, would bear the "Pulse" brand.

Bill started by designing new high-frequency horns. The requirement was for wide-angle coverage and smooth response. RCF's N252 compression driver was chosen for compact models with a high-powered Eminence compression driver for higher powered cabinets. The actual horn designs were of two types - Tractrix for the RCF drivers and Waveguide for the Eminence drivers. These Bill designed on his own, in one case using software which virtually had to be written from the ground up (Tractrix is a complex horn geometry from the 1930s so the math was in written form; the horn's effectiveness, however, turned out to be worth the effort). Initially the horns were fabricated outside, but Yorkville would acquire the machinery to make their own in later years. Crossover networks featured the same basic type of lightbulb tweeter power-guard scheme developed for the Elite line (see 1985) so the horns would be well protected.

Woofers would be from Eminence in the U.S. Featuring "M roll" cone suspension for cleaner reproduction when the speakers were working hard, also concave dustcaps were specified in some cases to limit unwanted upper midrange radiations. These outwardly unglamorous speakers proved to be a good match for Bill's horn designs. And as for the actual cabinets, full range models featured a trapezoidal format (wide at the front, narrow at the back - good for multiple speaker arrays) and all models were covered in grey/blue Ozite carpeting. Speaker stand adaptors were included on the bottoms of the full-range enclosures and on the tops of the two subwoofers introduced a year later. This way, simple, low-cost pole stands could be employed between them.

The initial Pulse lineup went as follows (note; in the model no., the number 10 = 10" woofer, 12 = 12" woofer, 15 = 15" woofer, 150 = higher powered 15" woofer):

P-10 (100 Watts pgm, 8 Ohms) f.r.= 80Hz-16kHz, max. spl = 118dB @ 1 metre

P-12 (125 Watts pgm, 8 Ohms) f.r.= 70Hz-16kHz, max. spl = 119dB @ 1 metre

P-15 (150 watts pgm, 8 Ohms) f.r.= 50Hz -16kHz, max. spl = 121dB @ 1 metre

HP-150 (250 Watts pgm, 8 Ohms) f.r.= 60Hz-16kHz, max. spl = 124dB @ 1 metre

Meanwhile, Paul Ierymenko had been working on new power amplifiers. Elite MX-1000 and SW-1000 enclosures could handle over a thousand watts each, yet the most powerful amp then in production at Yorkville was the Beta-800 (the MOS-1200 had been discontinued in 1987). Paul's response to this need for kilowatt-plus power levels came in the form of two new products - the Audiopro AP-1200 (600 Watts per channel @ 2 or 4 Ohms) and the AP-3000 (1200 Watts per channel @ 2 Ohms). These amps, especially the AP-3000, were among the very few available at that time with this much output capability, but there was more to the AP-3000 than mere power. The problem with a conventional 2400 watt amplifier (if, indeed, a 2400 watt amp can ever be considered "conventional") is that it needs to draw over 2400 watts from the wall socket in order to put out full power on a steady-state basis. Given a 117-volt AC line, 2400 Watts translates to substantially more than 20 amperes. But many clubs and other playing venues only have 15-ampere power outlets, hence a conventional 2400 Watt amplifier could blow house breakers or fuses in short order.

Yorkville's mandate has generally, but not exclusively, been to supply products the average user can employ successfully under average conditions. An amplifier which blows house fuses every time the music gets loud would fail to answer that mandate, thus Paul Ierymenko designed a clever limiting scheme into the AP-3000. Dubbed EMS for Energy Management System, this limiter would work all the time, basically restricting long-term power output so that peaks would be unlimited and yet the continuous output could not exceed what a 15-ampere AC circuit would allow. Additionally there was another limiter which was switchable and could be used to restrict excessive peaks.

EMS worked like a charm. AP-3000s became the mainstay of PA systems around the world. The AP-1200 was similarly successful and both amplifiers enjoyed 9-year careers being finally replaced by the AP2020 and AP4020 in 1998.

The Stage series begun in 1988 did some growing in '89. New guitar models included the G-100C (90 Watts, 2 channels, with overdrive and a 12" Celestion G12M70P4 speaker), the G-150C (150 Watts, 2 channels, with overdrive and two 12" Celestion G12M70P8 speakers) and the G-150H head (same power as the G-150C). Two guitar cabinets, the G-212C twin-twelve and the G-412C four-twelve, also featured Celestion G12M70's.

A single bass amp, the B-90, was added to the Stage line. It featured 4-band rotary equalization, a limiter and a 15-inch speaker.

Two guitar amps built in the Orient for Yorkville were added to the Image lineup in 1989. The IG-20 (20 Watts) featured an 8" speaker and variable overdrive and the IG-2012 was similar but featured a 12" speaker. These products are worth mentioning because they represented Yorkville's first instrument amps to be spec-manufactured outside the factory.

They would not be the last.

1990

New products for 1990 included the MC series of non-powered mixers (no amplifier built in). All models had the same features but different numbers of input channels. They were the MC-208, MC-212 and MC-216 (8, 12 and 16 input channels). Intended as lower-priced alternatives to the S-8, S-12 & S-16 (see 1985), these mixers had no internal reverb or effects, however there were dual effects send controls on each channel and dual sets of left & right effects return controls including monitor returns for adding external effects to the mix. Other features were basically similar to the "S" series.

The MP-8's almost instant success (see 1988) indicated that box mixers were a product category with room for expansion, thus the MP-6 was introduced. Features were basically similar to the MP-8 with only two major exceptions - there was a single 250-watt amplifier rather than two 150-watt amps and there were six channels rather than eight. As a result the price was lower and so the MP-6 also became successful in a hurry.

Subwoofers for the Pulse series were introduced this year. The SW-15 (300 Watts, 8 Ohms) featured the Trijector's heavy-duty 15-inch woofer (see 1984) in a compact reflex enclosure. The SW-18 (300 Watts, 8 ohms) was a similar type of enclosure but large enough to accommodate a new 18-inch woofer from Eminence. Both subwoofers featured the top-mounted speaker stand adaptor featured in the Elite SW-600 (see 1985). This would become standardized in all but the largest enclosures which are tall enough for the full-range cabinet to simply sit atop. A straight pole-type stand, the SW-TUBE and its telescopic sibling the SW-TELETUBE were available as accessories for the SW-15 & -18.

A new enclosure was added to the Elite line in '90, the MX-401M (400 Watts, 4 Ohms). This floor monitor was similar in content to the MX-401 (see 1988) but in the classic "wedge" enclosure introduced in the old Traynor YM-1 in 1974 and now standardized throughout the industry.

Yorkville pioneered portable lighting in 1967 with the primitive but effective Traynor LS-1. Since then modern, programmable lighting systems had come along, but few were club-size so it seemed like a good time to take a fresh look at portable lighting from that standpoint. The R&D project was spearheaded by engineer Tom Wood, one of the newer members of Yorkville's staff at the time who had a background in digital circuit design. By the Fall of 1990, Yorkville was back in the lighting business with the introduction of "Lightpro". Consisting of the LP-304 lightbar/dimmer and the LP-608 foot controller, Lightpro was (and is) capable of being controlled in realtime or pre-programmed via the foot controller, or run directly from a sequencer via MIDI (musical instrument digital interface). Lightpro proved to be another instance of Yorkville finding an opening in the market and filling it. An instant success, the system remained popular throughout the 1990s and beyond.

A third product, the LP-504D, contained the LP-304's "brains" in a compact box with four power outlets on the outside. Now people with nothing but 300 or 500 Watt spotlights could control them with an LP-608 or a sequencer.

1991

Installation products were never a major part of Yorkville's marketing plans. The only time the company had delved even briefly into this industry was back in the 1970s with the design and production of Amptech amplifiers specifically for installer/distributor Trans Canada Electronics. One or two production runs were made and that was that.

A trip to a PA installation trade show in 1991 convinced Yorkville management that there might be a place for Yorkville in that industry. Subsequently work was begun on the IS-340, a combination commercial amplifier and FM receiver. The IS-340 went into limited manufacturing in 1991 and remained in the line for around three years until increasing production demands in other product areas forced it into retirement. Speakers for installation purposes were another matter and remained in the line thereafter.

Professional home recording was pioneered by guitarist Les Paul in the 1940s and 50s. Due to the high cost of equipment, few people were inclined to follow his lead, that is until the late 1980s when compact mixer/cassette decks, digital reverb/echo units, equalizers, compressors, etc. came available at reasonable prices. Then came the advent of digital cassette decks which introduced studio-quality reproduction at reasonable prices. Studio quality microphones followed suit along with low-priced recording-style mixers. In the space of just a few years professional quality home recording was well on its way to becoming a bona-fide cottage industry.

In order to create a good sounding recording you need speakers to use as reference monitors. They don't have to entertain hundreds of people hence raw sound pressure is not a prerequisite, but they do have to be very accurate, moreso than home stereo speakers which tend to have bass and treble "flavoring" built in. Studio monitor speakers were an area where it looked like Yorkville could come up with something successful. Other such speakers sold by Long & McQuade et al for this purpose were selling briskly and did not seem to offer anything exceptional in terms of performance. Bill Woods was convinced that Yorkville could develop a superior studio monitor at a reasonable price and set about designing one. The resulting YSM-1 (70 Watts pgm, 8 Ohms, 6 1/2" woofer, 1" dome tweeter) debuted in mid-1991. Within less than a year it was receiving rave reviews and continues to be one of the industry leaders .

Two more studio monitors were introduced later in 1991. The YSM-2 (50 Watts pgm, 8 Ohms, 5 1/2" woofer, 3/4" dome tweeter) was smaller and lower priced than the YSM-1. The YSM-4 (60 Watts, 8 Ohms, 4" woofer, 3/4" dome tweeter) was smaller again and housed in a plastic enclosure (the other two were in black woodgrain-clad chipboard). Because of its small size and light weight the YSM-4 offered considerable potential as an installation speaker. It therefore featured a mounting point to take the YSM-4MOUNT, an adjustable wall bracket offered as a separate accessory. All three monitors remained in the line throughout the 1990s and beyond. The YSM-4 was built by a company in the Orient and the YSM-1 & 2 by a company in Canada which produces stereo enclosures for a variety of well-known brands. Yorkville opted not to build these in-house partially due lack of space for the specialized V-grooving machinery required to produce them.

You'll recall there were two subwoofers in the Elite line, a small one, the SW-600, which could produce around 127dB of maximum sound pressure level, and the huge SW-1000 which could generate 132dB max. spl. (for reference purposes, a jackhammer generates around 120dB). There was room for a third "sub", one which would be more compact than the SW-1000 but offer nearly the same amount of max. spl. Bill Woods applied his talents, working on a tuned-resonator, horn-loaded design which focussed its efficiency at a couple of low frequencies. The resulting SW-800 (800 Watts, *8 Ohms) was roughly half-way between the others in size but could average over 130dB - just what the doctor ordered. All three subwoofers remain in the line to this day.

*There has been some recurring consumer controversy over the SW-800 being rated at 8 Ohms. For that matter, the SW-1000 rated at 4 Ohms has been the focus of similar concerns. Here's the problem. A woofer has two types of impedance. There's the DC (direct current) resistance of the voicecoil and the actual amount of impedance the woofer presents to the output of the amplifier while it is reproducing sound in a specific enclosure. Where things get muddled up is when the manufacturer - RCF in this case - prints the rating (4 Ohms) on the speaker magnet label. Naturally, the only thing they can print is the DC resistance of the voicecoil. Why? Because they have no idea what the actual impedance is going to be when it finally gets installed in who-knows-what cabinet and subjected to who-knows-what kind of music at who-knows-what kind of power level. That's right, the cabinet, the type of music and the amount of applied power all have a marked effect on the final impedance (by the way, the "final" impedance actually goes up and down with the music frequencies just to make life more

interesting). But thankfully you can generalize about one thing, the active impedance of the woofer operating in the enclosure will ALWAYS be higher than the DC resistance of the voicecoil. In this case it averages out to 8 Ohms for the SW-800, 4 Ohms for the SW-1000. 'Nuff said? We hope so.

Speaking of subwoofers, two were added to the Pulse line in 1991. The SW-15 (15" woofer, 300 Watts, 8 Ohms) and the SW-18 (18" woofer, 300 Watts, 8 Ohms). A little later they were re-named the P-15W and P-18W and both featured top-mounted speaker stand adaptors so that a pole-type stand could inserted there to support full-range speakers.