

EXPERIENCE MORE:

A History of Audio-Technica Microphones

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((ROOTS))



Imagine the global culture of sound without the contributions of Audio-Technica. It is nearly impossible to fathom. For more than 45 years Audio-Technica products have refined the audio quality of: international events like the broadcast of the Olympic Games and The Grammy® Awards; impeccable studio recordings and live music industry events by legendary producers like Phil Ramone for established and emerging artists; historical events in world affairs and government; and the simple enjoyment of music, speech and worship across the landscape.



“This is about more than just a company that sells microphones. It’s a great story!”

Joel Singer, former Audio-Technica Marketing Manager
and current Lead Engineer for XM Productions

For many end users, the stereophonic cartridges, headphones and microphones embossed with the circled triangles of the Audio-Technica logo represent an experience of the world that simply would not be complete without the consistent fidelity and critically acclaimed durability of this sonic brand. In the parlance of show business, Audio-Technica is a world-class act that spans both the analog era and the digital age.

On the 30th anniversary of its microphone technology division, Audio-Technica has in many ways come full circle in its 46-year history by further shaping how we hear the world – and how we listen to it. The company’s celebrated microphone lines for its four key markets, Installed Sound, Live Sound, Studio Recording, and Broadcast, belong to a proud and rich tradition. That tradition is shaped by

research and innovation, collaborative problem solving with end users, engineering inspiration and imagination, plus occasionally the pure serendipity of being in the marketplace at the right place and the right time with the right product.

The Audio-Technica microphone history is a fascinating and storied tale inextricably tied to the times in which we have lived and the sounds that emanated from the many realms of entertainment, sports, governance, achievement and shared experience. Audio-Technica products have always been considered to be of “high quality, high performance and a very good value, with excellent customer service.” That’s because each of these signature components lies firmly in the DNA of the company’s Japanese and American roots.



Left: Audio-Technica's first products, the AT-1 and AT-3, became best-sellers in Japan

Right: Stereo cartridge production line, 1962

SOUND VISION

At 42 years of age, the honorable Chairman of the Board of Directors and Audio-Technica founder, Hideo Matsushita, left an established position leading the Bridgestone Museum of Art in Tokyo after staging a series of successful LP listening concerts. The year was 1962. A revolution in sound technology products was about to take place that would have made Thomas Edison proud and envious. In America, the affordability of Hi-Fi systems for the mass market was growing alongside the rise of rock-n-roll. Elvis had shocked and electrified The Ed Sullivan Show six years earlier in 1956 with his hip-shaking gyrations. As the '60s dawned, an entire generation of baby boomers in North America, and many of their parents, were beginning to tune in regularly to see the recording stars of radio and the bandstand on black and white television sets. A sound system of some kind to play records would soon be as commonplace as a telephone.

When Mr. Matsushita first opened the doors of Audio-Technica in what he

has described as a one-story “barracks” in Tokyo’s Shinjuku-ku, the company’s first home, he may or may not have been aware of the mammoth opportunities that lay ahead in the United States. But this burgeoning youth culture would in many ways eventually become key to the development and success of Audio-Technica markets for its cartridges, headphones and microphones.

By 1965, Audio-Technica found early opportunities with giant recording companies like Columbia Records in the States and Japanese broadcasters such as Nippon Hoso Kyokai. Both wanted the company’s integrated tone arms and stereo phono cartridges. While A-T cartridge sales began taking off in Japan, in 1964, the British invasion landed in America. Led by The Beatles, that pop culture watershed electrified the demand for supporting audio technology accessories for young kids in the U.S. and U.K. smitten by rock music. They bought millions of records to play on their stereos, formed their own bands, recorded for major and independent labels and played live as often as they could, wherever they could.



Sales of high-end AT-5 MM cartridges and the semi-integrated AT 1001 tone arm began in 1963



This early assortment of Audio-Technica products represents the building blocks of later headphone and microphone product lines

The British invasion essentially created the music industry in the West as we know it. And, in the ensuing years, it drove the demand for sustainable Audio-Technica products in its four critical audio markets. An early advertising and public relations campaign in Japan characterized Audio-Technica as “a miracle company” that was also “just a little bit different.” But other miracles were going to take root in America that would make an even bigger difference.

In 1972, Audio-Technica’s desire to have its own distribution company in the U.S. resulted in the formation of Audio-Technica U.S., Inc. The company was run initially by Jon Kelly, an English major whose passion for the arts, design and style was surpassed perhaps only by his passion for the emerging music business, specifically microphones and the musician-consumer. One colleague fondly remembers Kelly wanting to sell mics into the home recording market, which was a great idea –

The British invasion essentially created the music industry in the West as we know it.

but roughly 30 years ahead of its time! The company's new American offspring in Ohio did know that the appetite for sound accessories was as huge as the baby boomer demographics driving the rest of the nation's consumer culture.

Back then, Audio-Technica Japan and Audio-Technica U.S. may have had somewhat differing views of things, but they had transducer technology in common. Early on, the Japanese leadership and



Left: 1974 marked the introduction of the AT700 Series
Right: Audio-Technica U.S.

An early advertising and public relations campaign in Japan characterized A-T as “a miracle company” that was also “just a little bit different.”

its few engineers had seeded the makings of a global audio company by developing an expertise in transducers, the common technological building blocks for Audio-Technica’s stereo cartridges, the later headphone division and the U.S. microphone business. It was a logical, and almost Darwinesque product evolution, complete with adaptations to various market forces and an assortment of powerful movers and shakers.

The first series of Audio-Technica microphones was launched in 1978. The 800 Series included the AT801, AT813 and others. A lower-cost line of microphones, it was targeted primarily to weekend warrior musicians. As the line progressed (see the Live Sound chapter), the 800 Series quickly evolved with the times.

Never resting on the status quo, Audio-Technica has emerged today as a favorite of the many end users that you will read about in this brief microphone history. True to its bi-continental DNA and the sound vision of its founders, A-T’s struggles, innovations and triumphs have made it a leader in audio technology and an



Early point-of-purchase display for the 800 Series



The 800 Series was launched in 1978

honorable global player worthy of any competitor. Forty-six years later, the corporate figures in the States and the dedicated engineering and sales teams around the world have helped create animated new chapters in the company's history. It's an excursion in which readers and product users alike can "Experience More" through the many worlds where Audio-Technica microphones deliver a better quality of life.④

(((INSTALLED SOUND)))



The story of Audio-Technica's Installed Sound microphones plays like a Hollywood movie where an obscure character suddenly becomes incredibly famous and then has to face down a dramatic challenge to retain his standing. Instead of a person, however, the main character in this real-life movie is an innovative microphone line called UniPoint®. Although the company started producing mics in 1978 with the 800 Series of handheld vocal mics that targeted musicians, it would be six years before the company's microphone business landed solidly on the map for its Installed Sound applications. But when it happened, everyone in the industry knew it.

In 1984, Audio-Technica blew out a huge market niche with the introduction of the revolutionary UniPoint line, featuring five models: AT837, AT853, AT855, AT857QM, and AT859, with the AT857AM being added in 1985. The UniPoint story began with a simple observation by Jon Kelly and a few of his cohorts prior to 1984 who knew how poorly microphones performed in places like churches, boardrooms and other public settings. Besides questionable sound quality, they were also large and unsightly. Or, as the former AT-US Chief Operating Officer Ken Reichel noted, “extremely gaudy and hard to look at, especially in churches.”

Characteristic discussions listening to what end users needed in an installed sound solution led to the conviction that the market was hungry for new products that both sounded and looked good. A team directed by Kelly, Reichel and Japanese lead engineer Hiroshi Akino went to work building early prototypes. The trend toward miniaturization in electronic components and manufacturing processes in Japan in the early '80s played a demonstrable role in the development of the UniPoint brand in America.

When the prototype was completed, Reichel christened it the UniPoint, the industry's first miniature fixed-charge condenser mic line, which included handheld, hanging and gooseneck microphones. The company successfully tested the mics in the field before moving to market.

**Take
a long
look ...
And
listen!**

**Model
AT859**

You've seen long, skinny mikes before. But not like this one. The AT859 is both long and skinny and an excellent condenser microphone. In fact, its small diameter makes it a better cardioid than the fat ones!

With its extendable wand, it makes the perfect mic for interviews, talk shows... wherever you need to get the mike close while you stand back. Phantom or battery powered to go anywhere.

It's just one of a series of Audio-Technica advanced design electret UniPoint™ microphones designed to solve sound problems without getting in the way. See them now at your nearby Audio-Technica sound specialist, or write for literature today.


audio-technica.
 1221 Commerce Dr., Bldg. C-14254
 (214) 496-2800

AT859 ad, 1985

“The trend toward miniaturization in electronic components and manufacturing processes in Japan in the early ‘80s played a demonstrable role in the development of the UniPoint brand in America.”

Ken Reichel

Once the innovative line hit, it was especially a defining moment inside the corporate offices in Ohio – the flush of success was palpable in A-T offices on both sides of the Pacific. The ultra-compact microphones were industrial-strength and eventually expanded to include boundary mics in ‘86 and long goosenecks in ‘87. The products were lauded for their fresh sound integrity, high performance and elegant design features.

Today the UniPoint line – and the lines that grew from it – are common just about everywhere on podiums, in boardrooms, hanging from ceilings in churches and theaters, and prominent at all levels of government from local city council chambers to the desks of conference rooms at the United Nations and in both houses of the United States Congress. In short, the UniPoint line and lines spawned by it, such as the Engineered Sound line, have emerged as some of Audio-Technica’s superstar products.

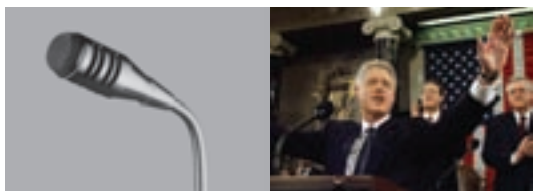


Photo courtesy Win MacNamee / Getty Images

Left: RD303 TriPoint mic

Right: President Bill Clinton giving his State of the Union address

The AT853 UniPoint™ Condenser Cardioid

**It's been
hung,
planted,
buried,
strapped,
stood up,
clamped,
taped,
and swung...
all in the name
of better,
less visible
sound.**

The AT853 condenser cardioid is a remarkable microphone. Smaller than your little finger, yet with flat response from 30 to 20,000 Hz, and an effective cardioid pattern, even at the lowest frequencies.

The AT853 is so light (1/2-ounce) it can hang on its own 25-foot cord above a choir or orchestra. The ingenious wire adapter permits pointing it exactly where it's needed without support cables or stays, making the AT853 even less visible.

It also includes a neat stand adapter to instantly convert the AT853 into a desk or floor stand model. Or simply hide it in the bushes, behind props, or wherever superb sound is

needed with minimum visibility.

The AT853 is operated by a single 1.5V "N"

battery or phantom power. The power module also has a low-frequency rolloff option to solve rumble and room noise problems.

The AT853 is one of a family



of six UniPoint ultra-miniature condenser microphones. Each with special features to solve the toughest sound pickup problems, plus professional reliability. And all from the innovators at Audio-Technica.

The AT853 may be hard to see, but it's great to listen to. Arrange for a hands-on test today.



audio-technica.

Audio-Technica U.S., Inc., 1221 Commerce Dr., Bost., OH 44224
(216) 698-2600

“The UniPoint brand became the Kleenex® of the installed sound environment, it was so popular.”

Ken Reichel

“UniPoint transformed the company!” Reichel exclaimed. “The UniPoint brand became the Kleenex® of the installed sound environment, it was so popular. It became a significant part of the company’s condenser microphone business.” As the word spread in the worship community about how great the mics were, Audio-Technica employees, including Reichel, worked the trade shows and presented many demos to dealers throughout the country, trying to drive more sales.



Left: AT854R

Right: U891R Cardioid Condenser Boundary Microphone

All the hard work in the product development phase and sales cycles paid off. The front end R&D process had wrapped not only expert engineering but also good listening to the target market to deliver more than expected. Enthusiastic sales teams and eager users at the back end were both happy with the final product. With UniPoint and the related products that followed, Audio-Technica’s Installed Sound division had arrived, and the market and the industry rolled out the red carpet.



TriPoint mics were used in the 2000 presidential debates between Al Gore and George W. Bush

MORE INNOVATIONS – AND A NEW CHALLENGE

“The company kept up the pace with more Installed Sound innovations from 1985 to 2003,” notes Michael Edwards, the present-day Director of Product Management for Wired and Consumer Products. In 1988, the TriPoint microphone came into use, which packaged three independent UniPoint elements together in one microphone. The TriPoint design ensured redundancy and reliability. And it soon

found its place at the highest levels of the U.S. government and at the pinnacle of the political process.

The TriPoint was a significant benchmark in the Installed Sound category because it signaled the beginning of Audio-Technica’s product use in the U.S. presidential debates (See “Sounding Presidential” Sidebar). In ’88, then-Vice



The 2004 presidential debate between George W. Bush and John Kerry featured A-T's 5000 Series wireless system

President George H.W. Bush debated Michael Dukakis on national television while the Audio-Technica TriPoint mics amplified each candidate's views. Regardless of the equally high-quality amplification that the mic afforded both politicians, Bush became the 41st president of United States in a landslide.

In '92, TriPoints were again used, along with AT831 clip-on mics, during the presidential debates. This time it was Bill Clinton and Al Gore versus President Bush and Dan Quayle versus third-party candidates Ross Perot and David Stockman. In 1996, the mics were also used in the Bill Clinton-Bob

Dole debates. In the 2000 race, Al Gore and his opponent, George W. Bush, again relied on the high-quality TriPoint mics to make their pitch to the American public in what turned out to be a highly controversial outcome at the ballot box. John Kerry and Bush jostled for the presidency during their televised debates using TriPoints, along with 5000 Series wireless systems, in the run-up to the 2004 election.

The many roles that Audio-Technica microphones play today in American government were developed in much the same way that Audio-Technica mics were being cultivated in Live Sound,

Models of the current Engineered Sound line are plainly visible 24/7 on C-SPAN whenever it goes live from congressional chambers.

Studio Sound and Broadcast: Product introductions were made, relationships were formed, and in many cases, product improvements grew out of those interactions. In fact, the TriPoint mic stemmed from a customization process based on what was needed in the chamber of the U.S. House. And today, models of the current Engineered Sound line are plainly visible 24/7 on C-SPAN whenever it goes live from congressional chambers.



Left: AT831 cardioid condenser lavalier mic

Right: John Kerry with 5000 Series handheld mic



ATW-1237 handheld condenser wireless system

The '90s were terrific for Audio-Technica, as good as the dot-com gold rush during that era without the bust. In fact, a 1990 ad for UniPoint characterized the company's fortunes as the wireless age was dawning: "The Best Keeps Getting Better." This held true for most of that decade as Audio-Technica mics showed up in prominent places, including a phalanx of ES935MLs that were strung over a 300-voice choir during Pope John Paul's papal mass in Baltimore at Camden Yards in 1995. In

1996, the company debuted its ATW-1237 handheld condenser wireless system, featuring the same UniPoint element used in the AT873R wired handheld mic, which proved to be an industry pacesetter.

Audio-Technica's microphone innovations would continue into the 21st century. But with the arrival of widespread cell phone and Blackberry usage early in the new century, a major new problem reared its sonic head that challenged the

superiority of the UniPoint technology. Both cell phone and Blackberry signals interfered with installed microphone systems everywhere, regardless of brand or application!

“Around 2004-2005, these handheld devices interfered with microphones,” notes Jim Lappin, Audio-Technica’s Wireless Product Manager. They emitted debilitating radio frequencies that introduced unwanted audible signals into the sound system. Like a classic movie villain, they generally wreaked havoc. Lappin recalls that, “End users and sound installers first started to notice it in the congressional conference rooms, but the problem was widespread. The mics used then weren’t designed for such RF-heavy environments.”

Mike Edwards painted an even grimmer picture of the problem: “We had to totally stop what we were doing and focus on

re-engineering our Installed Sound mics for these environments,” he explained. Ken Reichel cut right to the chase in his retrospective assessment: “We spent a fortune trying to develop bulletproof RF immunity.”

“It wasn’t a simple problem, and there was no immediate solution within reach,” Lappin recalled. The interference ran into



The AT915QMR/MLx was used during Pope John Paul II’s historic 1995 visit to St. Joseph’s Seminary in New York City

the microphones and down the cables and affected every Audio-Technica mic in the UniPoint line. “In order to begin to understand the problem and how to attack it, we had to first establish a baseline; there was no test in the market, no standard to use to come at it. At times, it was a bloody process.”



AT873R UniPoint hypercardioid condenser mic

Throughout the company, including A-T Japan (where RF interference was not an issue because their cell phones relied on a different frequency) the best people were tasked with solving the problem. An outside consulting lab was even hired to create an environment where the cell phone/Blackberry-UniPoint mic interaction could be duplicated and tested. Other important projects were delayed a year or more while the challenge was met head-on. “This thing sent ripples through the entire company,” Lappin said, “but our competitors were in the same boat.”

Luckily it was Audio-Technica’s best and brightest who solved the problem first, creating RF shielding they coined “UniGuard” to block the cell phone and Blackberry interference. UniGuard® shielding was the result of many months and long hours of hard work. But it paid off with 13 new patents and a solid second act for A-T’s

“It’s those kinds of challenges where our customers expected the company to solve the problem, and we did so, using the best minds and resources we had.”

Ken Reichel

Installed Sound brands. In a very short time, RF shielding became an industry standard and took what both Edwards and Reichel said were flattening sales in the Installed Sound market and “completely turned it around for us with the re-launch in 2005 of the UniPoint line, followed soon after by an Engineered Sound line re-launch, both with UniGuard.”

It’s those kinds of challenges, Reichel noted, “where our customers expected the company to solve the problem, and we did so, using the best minds and resources we had. It is the same approach as when we entered the wireless market with the SpectraPulse launch (see Coda chapter) and the way things really get done at Audio-Technica. These are the kinds of major issues that test your business and make a company what it is.” ④



Engineered Sound ad touting Audio-Technica’s revolutionary UniGuard technology

SOUNDING PRESIDENTIAL **AUDIO-TECHNICA AMPLIFIES** **THE POLITICAL PROCESS**

You often hear the phrase “sounding presidential” during the selection process for the next president of the United States. For the past 20 years, Audio-Technica has put the sound in sounding, in large part through the work of long-time collaborator and consultant Laurence Estrin.

Estrin is one of the preeminent go-to guys in the world for high-level public events and sound installations. Papal tours, presidential political debates, thousands of movie and television productions, the Pasadena Pops Orchestra, 19 Super Bowls – you name it, he’s probably miked it. The Grammys, The Academy Awards (22 times), opening ceremonies for Euro Disney, several Olympics, Epcot’s Multicultural Pavilion, plus a host of other world-renowned sporting events and other government and state-sponsored special occasions, Larry, as friends call him, has been there, done that, heard it all.

Of all his accomplishments, however, Estrin is very proud of and well known for his audio work on every United States presidential debate since 1988, his specialty. Over the years, he’s made some striking observations about how technology advances have impacted politicians and colored the political spectrum as well as the audio spectrum. In the 2004 contest between George W. Bush and John Kerry, he used the 65-70 ATM61HE mics in the audience. But he had to make a slight modification: To eliminate any perceived partisan bias, he removed the red neckrings from the mics. For their wireless handhelds



AFP Photo/Jeff Haynes



however, Bush received one with a red neckring, while Kerry's was blue. Sensing a subtle blue-state, red-state story, CNN interviewed Estrin about the Audio-Technica microphones.

Are some presidential candidates savvier about the mics they rely on to get their messages out to the electorate? "Absolutely," Estrin says. "You can tell almost immediately which ones are smarter about sound.

Bill Clinton really liked microphone technology, he understood it, perhaps because he's a closet musician," notes the man who used an ATM35cW on Clinton's sax during festivities at both inaugurations.

During the Kerry-Bush debate in St. Louis in 2004, the candidates used the 5000 Series handheld transmitters. But Bush had the upper hand, so to speak, because he realized how to use the mic to his advantage: "Kerry never got that if he brought the mic in close, he could be more commanding, more presidential," Estrin explains. "Bush discovered that feature and used the mic to his advantage." Looking ahead, Audio-Technica's Strategic Technology Specialist and longtime friend and collaborator will be miking the 2008 presidential debates in the fall. He's eagerly looking forward to it, if for no other reason than to use Audio-Technica's SpectraPulse UWB wireless system for the first time in the history of the debates. Like a kid carrying a big secret, he's rightfully excited. "Broadcasters and anyone who knows and understands quality sound are going to be blown away by it!"

((STUDIO SOUND))

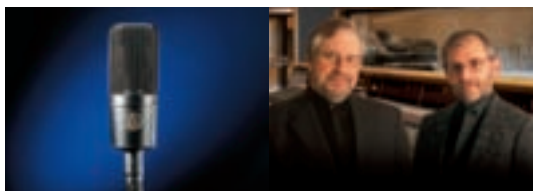


Every company has its golden era. The years between 1988 and 1998 were simply inspired for Audio-Technica's microphone line, marking the development of the landmark 40 Series. The company took no chances with the series' consistency and reliability: every 40 Series microphone was – and still is – individually tested and inspected for 100 percent quality assurance – a rarity amongst today's mass-marketed studio microphones. These groundbreaking microphones for the recording studio garnered some of the most important endorsements from major recording figures in the music industry and the highest honors that the audio engineering industry bestows.

The trigger was a side-address microphone released in 1991 that set new standards in the industry, both for its performance and price – the AT4033. “The 4033 microphone started a revolution,” noted Ken Reichel, retired AT-US VP and COO. For the first time ever, a high-quality, stylish recording studio microphone retailed for under \$1,000. With most other high-end competitors’ products selling north of \$2,000, it didn’t take long for the word to spread in the recording community that a great-sounding, awesomely priced microphone was on the market.

The AT4033 didn’t just have a great price, it also had a royal pedigree. Legendary producer Phil Ramone consulted in the sound design process for the now-classic microphone. The Godfather of the 4033, Ramone continues to use the mic in sessions until this day. In fact, he agreed to appear in a 1991 ad for the mic, with the headline, “He wouldn’t give it back!” No stranger to fanfare, Ramone gladly introduced the 4033 at the Audio Engineering Society (AES) show in New York in 1991.

Of course, the commotion didn’t just happen in a vacuum: “There was a concerted effort at the company with the 40 Series to get endorsements from leading producers and engineers in the music industry,” recalled Fred Nichols, retired AT-US Senior VP. “Print ads also helped drive awareness and later sales.” But, he noted, many music business experts, such as Ramone, were happy to give their endorsements and to be part of the ad campaigns – and they did so gratis!



Left: The revolutionary AT4033 was released in 1991

Right: Producer Phil Ramone and studio engineer Elliot Scheiner

“The 4033 microphone started a revolution.”

Ken Reichel, Former Audio-Technica U.S. VP and COO

“We worked with key engineers and producers in developing prototype products that met their needs and the needs of the great recording artists that they worked with,” continued Nichols. “They agreed to give their support because most of them felt they had a stake in the product, they had ownership. That really helped the 40 Series line retain a kind of patented integrity both in the development process and final product.”

“In my view, the 40 Series years were some of the best years of the company,” Reichel observed. “We were always given the liberty to do entrepreneurial things, and I credit the parent company for letting that happen. They understood that we were the ones who really knew what the U.S. market wanted, and we went out and delivered it.”



Left: Every 40 Series microphone is individually tested and inspected for 100 percent quality assurance

Left-Center: AT4033 ad featuring legendary producer Phil Ramone, 1991

Right-Center: AT4050 ad featuring Alan Parsons, 1994

Right: The AT4050 was introduced in 1994



Photo courtesy Michael Ochs / Getty Images

Alan Parsons in the studio in the early '70s

AUDIO INTELLIGENCE INSIDE THE STUDIO UNIVERSE

The revolution started by AT4033 didn't stop after 1991. 1994 saw the introduction of the celebrated AT4050, a dazzling follow-up to the 4033 that was perhaps even more highly regarded in the recording studio. The cast of important music biz figures who lined up behind it was indeed impressive, beginning with musician, engineer and producer, Alan Parsons, who introduced the new mic in Amsterdam during the 1994 AES Europe event. Parsons became a major endorser of the 4050, which was huge for Audio-Technica. The studio was where Parsons learned his chops under the most creative and

influential rock musicians ever to play and record. Parson's self-described engineering apprenticeship with George, Paul, John, Ringo and George Martin inside The Beatles' legendary Abbey Road Studios in London gave way to studio and live touring work with Pink Floyd. He also was the engineer on one of the best selling records of all time, *Dark Side of the Moon*, Pink Floyd's landmark '70s concept album. And he went on to record many other groups, including his own, The Alan Parsons Project. Parsons has used Audio-Technica mics religiously, "and never once had one break down in the studio."

It wasn't long after the AT4050's introduction that the mic's quality reputation rapidly sped through the rock ranks and into other genres. Yes vocalist, Jon Anderson, became another huge advocate by 1995, using not only the AT4050 in his Opio Productions, but also the AT4033 and AT4051. Producer and ace drummer, Russ Kunkel, who's played with more famous musicians than there are microphones in the world, used 40 Series mics when producing Jimmy Buffett's *Barometer Soup* album. Today his recording engineer phenom son, Nathaniel, having recorded the likes of the late Robert Altman, Billy Joel, Graham Nash, James Taylor, Lyle Lovett and others, calls the 40 Series, "my go-to mics."

Also in '95, the legendary Nashville producer, Tony Brown, recorded a Tracy Byrd album with an AT4050 and went on to use it on projects with Alabama, Reba McEntire, George Strait, Wynonna Judd and many others. Brown appeared in an ad for the 40 Series alongside producer/engineer and digital pioneer Chuck Ainlay, who praised the 40 Series for its flexibility and crisp, detailed sound.

"I tried it (the 4050) out and instantly fell in love with it."

Alan Parsons



Left: The AT4051a pairs the AT4900a-48 body with the AT4051a-EL cardioid element

Right: Legendary studio drummer Russ Kunkel and his son, producer/engineer, Nathaniel Kunkel

HOME STUDIO NECESSITIES THE 30 AND 20 SERIES

The digital era ushered in a major transformation of the studio recording industry. In a word, it moved “home” in the ‘90s, creating a new demand for affordable, professional-quality recording equipment. Audio-Technica stepped up with the 30 Series in 1998 to meet the home market stampede. But it didn’t short the microphone brand’s audio quality and durability, or the experience of the end user. In fact it continued to provide the kind of unexpected value that made the various preceding lines so satisfying to use.



Left: AT3035, AT3032 and AT3031

Right: The AT2020 set a new standard for affordable side-address studio condensers when it appeared in 2004

The 30 Series featured condenser mics that were ideal for home-recording setups. They retained the brand’s high quality standards and, with the supporting “Make It Happen” ad campaign, the series proved very successful. It also paved the way for the 20 Series in 2004. According to Gary Boss, AT-US Marketing Director for Retail, Live Sound and Studio, there were long discussions and some hand wringing about developing a line for the home market that could compete on price and performance.

“The 20 Series was arguably a whole new world for us,” Boss remembered, “but it proved to be one of the most well received product lines ever sold and had an unbelievable price – \$100.” What else drove the line’s popularity? The same features that characterized the brand back to the beginning: ruggedness, consistency and top audio quality, even with a lower cost. When the AT2020 mic came on line, it set a new standard for affordable side-address studio condensers, and earned praise from the audio trade press. Two reviews perfectly captured the essence – and strategy – of both the 20 and 30 Series developments: “A lot of mic for the money...you’ll get more than you pay for...” and “...I don’t know how Audio-Technica did it, but this mic is well built, comes with useful accessories, and offers solid performance at an amazing price.”



The AT4060 featured hand-selected, individually tested and aged tubes to achieve the classic sound of valve design



The AT4047 was designed with a transformer-coupled output and specially tuned element to provide sonic characteristics reminiscent of early F.E.T. studio microphone designs

By 1996, it seemed like nearly everyone who was anyone inside the studio-recording universe had embraced the Audio-Technica 40 Series – and happily endorsed the powerful product line. Ed Cherney (Rolling Stones, Bob Dylan, Eric Clapton, Iggy Pop, Bonnie Raitt, et. al.) plugged the 4033, then came back later to praise the newer mics that came on line, the AT4060 tube mic in 1998 and the AT4047/SV in 1999.

The AT4060 featured hand-selected, individually tested and aged tubes to achieve the coveted, classic sound of valve design without compromising the specification standards required for the most demanding recording situations. Perhaps that's why it too was heralded by audio wizards like Ramone and Brown, as well as Emmy- and multiple-Grammy Award winner David Reitzas, a master mixer/engineer/producer for some of the biggest names in Pop, Latin and R&B. For the man who's worked with Ricky Martin, Luis, Madonna, Barbra Streisand, Celine Dion and other megastars, the 4060 represents a top quality durable recording tool for drums, vocals, guitar, strings, piano, percussion – "you name it, these mics hold up!"

“You name it, these mics hold up!”

David Reitzas

The AT4047 was designed with a transformer-coupled output and specially tuned element to provide sonic characteristics reminiscent of early F.E.T. studio microphone designs. The 4047 also featured exceptionally low self-noise, wide dynamic range and high SPL capability. The versatile microphone excelled on vocals, strings, acoustic guitar, instrument ensembles, small vocal groups and voiceovers. That’s why Ramone chose the 4047 to capture *Manilow Sings Sinatra* in 1999, as well as Natalie Cole’s *Snowfall on the Sahara* album.

Fast forward to 2006 to Tony Bennett *Duets: An American Classic*. This very special occasion marked not only the legendary vocalist’s 80th birthday but also a milestone in music – and another benchmark for the AT4047, which was used along with the Artist Elite AE5400 mic to record the vocals of 18 major recording artists including Bono, Elton John, Barbra Streisand, Dixie Chicks, Paul McCartney, Celine Dion, k.d. lang, James Taylor, George Michael, Elvis Costello, Billy Joel, Diana Krall, Stevie Wonder, Tim McGraw and John Legend.



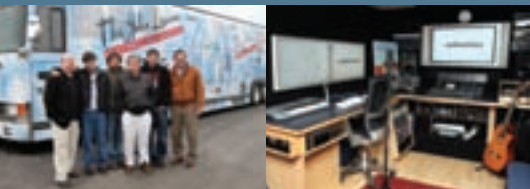
Left: Producer Tony Brown with producer/engineer Chuck Ainlay

Center: Mixer/engineer/producer David Reitzas and producer/composer Walter Afanasieff

Right: Phil Ramone in the studio with Natalie Cole

MAGICAL MYSTERY TOUR ROLLS ON

JOHN LENNON BUS AMPED UP WITH A-T MICS



It's a recording studio. It's a multi-media lab on wheels. It's a rolling live music venue. However it's used, the John Lennon Educational Tour Bus isn't lacking for the latest in microphone technology, thanks to the largesse of Audio-Technica. Since 2005, the

company has helped keep alive the artistic spirit of the famous Beatle by supplying the bus with a complete line of live, wireless and studio microphones. Among the mix: models from the company's acclaimed 40 Series, a host of Artist Elite mics, and many other professional audio essentials.

Working together with some of the biggest names in music, the Lennon Bus provides free workshops for young people around the country. Once on the bus, they learn to write songs, record them, engineer recording sessions and produce a music video – which they take home at the end of the day – using the latest audio, video and live sound equipment. The touring bus, not unlike the bus of the Fab Four's "Magical Mystery Tour" period, grew out of the annual John Lennon Songwriting Contest. For the past eight years it's made frequent stops at major rock events like the Vans Warped Tour, NAMM sessions and wherever talented young musicians aspire to get their own careers going – and one day their own buses!

Brian Rothschild, Executive Director of the John Lennon Songwriting Contest and Educational Tour Bus, noted, "Without the support of companies like Audio-Technica, the Bus could not tour the U.S. 10 months out of the year, introducing kids to music and encouraging them to write songs and play music." To which Mr. Lennon might indeed reply, "Yeah, yeah, yeah, yeah."

Bennett and Ramone had collaborated before, and both were keen on using classic recording techniques so well suited to these songs and artists. “I chose the 4047 because of its neutral sound and wide pattern,” noted Ramone. “During the recording sessions, many of the artists were interacting with each other and not always singing ‘dead on’ the mic. The 4047 is very forgiving, whether you step back from it or if you’re to the left or right of it. The quality on Tony’s voice and each artist guesting was completely consistent... between the 4047 and 5400, not one artist asked if they could try another mic.”



The AE5400 (left) was used along with the AT4047 to record Tony Bennett's *Duets: An American Classic*

The 40 Series played another major role in a similarly historic project, the Music Bridges-Cuba CD and DVD in 1999. The meeting of two cultures remote in lifestyle, if not actual distance, resulted in *Bridge to Havana*, a 12-track CD of songs composed and recorded in both English and Spanish.

It didn't really matter where the 40 Series traveled, or what type of musicians worked with it. Time and again, its exquisite sound-capture features were perfect for recording vocalists such as Australia's best-selling pop artist, Kate Ceberano, nimble jazz guitar cats like Larry Carlton, who recorded his album *Fingerprints* with Audio-Technica's AT4060 and AT4051 mics – or even bluegrass legend Del McCoury who gathers his entire band around a single AT4033.

“Evolutions in technology that produced Audio-Technica's breakthrough products like the 4033, the 4060 and later the SpectraPulse wireless system reflect a key characteristic of the Audio-Technica culture,” explains Jackie Green, a 21-year veteran of the company and Vice President

“The 4047 is very forgiving, whether you step back from it or if you’re to the left or right of it. The quality on Tony’s voice and each artist guesting was completely consistent... between the 4047 and 5400, not one artist asked if they could try another mic.”

Phil Ramone, President Emeritus of The National Association of Recording Arts & Sciences (NARAS)



Left: AT4033

Right: Bluegrass legend Del McCoury

of R&D/Engineering. Green credits much of that to Audio-Technica’s cross-cultural engineering teams; a physics background – “ideal for problem-solving in the audio world” – also helps.

“The company uses technology advances as stepping stones toward product evolutions and innovations.” And she cites much of that progress to the relatively small and tight-knit engineering teams in both countries “that have worked together

so long on so many challenging developments that sometimes it seems our best work in R&D is done symbiotically, with engineers arriving simultaneously at solutions that drive our products ahead.” However it gets done, it’s having a major impact on a variety of players in the music industry.

The best ears and the most innovative minds in the business continue to champion Audio-Technica’s 40 Series microphones. Like they used to say in radio, “the hits just keep on comin’.” As the pioneering digital and surround sound three-time Grammy award-winning producer Frank Filipetti (Korn, KISS, Pavarotti, Rod Stewart and others) noted, “The Audio-Technica 40 Series microphones have become indispensable, especially the 4047...I don’t leave home without it.”

Looking back at the decade that made Audio-Technica a giant in the Studio Sound category, producer Ed Cherney’s comments about the AT4060 (featured in an ad with another 40 Series musician-supporter, Don Was) readily captures the

sentiment for this enduring microphone line: “I put up a 4060 and everyone is happy – the artist, me, everyone.”

No amount of money could buy that kind of love for a microphone line. 🎧



Left: Musician and producer Michael Beinhorn and mixer and producer Frank Filipetti

Right: Engineer Ed Cherney and Don Was



AN INTERVIEW WITH PHIL RAMONE

One of the most respected and prolific music producers in the recording industry, Audio-Technica endorser Phil Ramone has earned 14 Grammy Awards, including a Technical Grammy recognizing his lifetime of contributions to the recording industry. Known for his technical acumen as well as his musical clarity, Ramone has helped pioneer many industry technological developments over the years, ardently supporting use of digital video disc, hi-definition recording and surround sound. His list of credits includes collaborations with many of the greatest artists of the era... Bob Dylan, Aretha Franklin, Paul McCartney, Paul Simon, Rufus Wainwright, Shelby Lynne, Luciano Pavarotti, Frank Sinatra and many, many more. Late in the fall of 2007, he took the time for a conversation about his use of Audio-Technica products over the years.

“I really love this microphone.”

Audio-Technica:

Do you remember your first encounter with Audio-Technica microphones?

Phil Ramone:

I was working with a really great antique mic at the time. We were working out at Venice Beach, maybe the second or third day before we were to finish. At about 8 o'clock at night, the mic conks out. A guy says, *“I don't know what you want to do.”*

I say, *“Well, what have you got?”*

He says, *“I've got this new mic. It's called an A-T.”*

I say, *“Oh, really?”* Because I just saw [some people from A-T] at a meeting down at Gloria Estefan's studio.

So I put up the A-T mic. I add just a little bit of EQ at the top, like at 15k, and a little bit just below, like maybe at 80 – just a bump. And I match the voice. I told the repairman he could go home.

I say, *“I've got to call these people.”* I call the A-T distributor in Florida. He says, *“This is the guy you should call. He's in Stow, Ohio.”*


I get the guy from Audio-Technica on the phone, and I say, *“Look, you don't know me, but what's important to me is – I need to keep trying your mics. Would you send me a couple to try?”*

He sends me an AT4033. I say, *“I really love this mic.”*

He says, *“Well, it'll be manufactured in a couple of months. And if you love it that much, maybe you'll do an ad.”* I think that developed the campaign for the ad, which was – “I'm not sending this back.”

A-T: Have you introduced a lot of artists to A-T?

PR: Oh, yes! They're grateful, and they also love the fact that when you are in almost any city, the music stores have the mic.



In all my time working with Audio-Technica, the company has been amazingly cooperative. An example – I was about to do a concert – well, it turned out to be five summers with Pavarotti with a symphony orchestra. We experimented with a lot of Audio-Technica microphones. I was looking for the right clip-on mic for the strings – and A-T helped me find the solution – the ATM35.

Another example. I did a show out of Radio City – Liza Minnelli was the artist. I wanted a microphone that would look excellent in hand. Audio-Technica had the solution. That was the precursor to the AE5400.

I do a fair amount of live shows a year. Some of them are televised; some are just incredibly crazy affairs. And I have to guarantee that if the microphone were dropped and a truck hit it, maybe that's when it falls apart, but it will not fall apart on any show. There is no room for "*whoops*." Audio-Technica gives me that reliability I need.

Another thing that's great about A-T – not only do they make great products – but they let me throw ideas out there and then start to develop them.

A-T: Back on that 4033 as an endorser, was that a good experience for you?

PR: It was a great experience. I had never really put my face on a product before.

A-T: Was that the mic you settled on for Pavarotti?

PR: Yes, at the beginning.

A-T: What year was that, approximately?

PR: Let's see, that would have been early '90s. It was right around the time that I was recording Sinatra's first duet album.

With A-T, it's guaranteed that the microphone's going to work when you plug it in. [With many other brands,] if you put up three of the same model numbers, you don't always get the same sound. But with A-T – consistency's the name of the game. I'm happy and proud to see how well these A-T microphones work.

When you're in a studio, you care that you don't have to really fight to do another take over a glitch that you could have avoided. I think all great engineers



do the polite thing at the beginning. They say, let's put up three mics and we'll record the song on each. When we ask, "Which one do you like?" the artist says, "Oh, I sound great on that," and they point to the Audio-Technica mic. That happens a lot. *A lot.*

A-T's new headphone – the ATH-M50 – is a killer, too. It really is. It's so rapidly becoming what I call an industry favorite. That needs to be spoken about.

A-T: What's just over the horizon?

PR: We've got all these great young kids coming in out of all of these Full Sails and Berklees, and you go, I've got to train them. I want them to be able to put together a show properly: record the show, get it to the studio and fix it... You know, it can be very expensive to go overtime for no reason. Efficiency is really important. Also, I have to rely on my microphones for bulletproof reliability – if you drop the mic, it ain't the end of the world. It has to work this way.

I've had a great relationship with Audio-Technica. I can call out to the factory – and there's nobody that doesn't listen. And everybody's out to do the next phase, which is to shock people with how great [the product] can be.

You know, Audio-Technica has been so good to me – it's amazing in our business.



AN INTERVIEW WITH ALAN PARSONS

Longtime Audio-Technica endorser, legendary engineer/producer/recording artist Alan Parsons was still a teenager when he landed a job at Abbey Road Studios in London. From that auspicious beginning as an assistant engineer on The Beatles' *Let It Be* album, Parsons went on to work as an engineer with Paul McCartney, and as an assistant and mix engineer on George Harrison's *All Things Must Pass*. Parsons earned his first of many Grammy nominations with his engineering work on Pink Floyd's *Dark Side Of The Moon*. Later, along with songwriter/manager Eric Woolfson, Parsons created thematic records under the banner of The Alan Parsons Project. Alan Parsons took some time to sit down with us for a conversation in the fall of 2007.

“I’ve always favored the 40 Series for just about everything.”

Audio-Technica:

Take us back to your first encounter with Audio-Technica microphones.

Alan Parsons:

Buzz Goodwin – he was with you at the time – got me involved trying out different Audio-Technica mics. The first A-T mic he sent me was an AT4033. I tried it out and I instantly fell in love with it. Slightly enhanced top end, which is what I liked about it. Most of the other vocal mics I’d worked with in the past, I always had to add top end; I was able to work with this mic, generally speaking, flat.

A-T: Are you still using the 40 Series today?

AP: Oh very much so. I’ve always favored the 40 Series for just about everything since my relationship started with Audio-Technica.


A-T: When the AT4050 came along, you were a big endorser of that product for Audio-Technica.

AP: That microphone has everything going – it has all the advantages. The AT4050 had the same characteristics as the 4033, but it was a smoother, flatter mic, more suitable for piano or an orchestral instrument. I still lean towards the 4033 for vocals. I’ve done vocals on the 4050; and on occasion I put both of them up.

Then there’s the reliability factor. I have never had an Audio-Technica mic break down on me in the studio. If you’re recording a film score or something and you’ve got 50 musicians in the studio, you can’t really afford to lose a take through your mic breaking.

A-T: When you first walked into Abbey Road you were still a teenager, right? And some of your early records were working with The Beatles.

AP: I can’t really take any engineering credit for The Beatles; that was my apprenticeship. It was just so incredible to realize that there I was in a terrific job with a great recording studio, and then on top of that working with the greatest rock band that ever was. I used to lie awake thinking, I want to get up again and go and do some more, but I’ve got to sleep. I was so excited to go to work.



I was in the right place at the right time. The Abbey Road training was really good. There was enormous diversity of music that went through there. And learning to work under pressure was a big plus.

Every step of the way was a learning process. I mean, George Martin's production prowess, and the internal strife between The Beatles themselves. I probably should have written everything down at the time and taken copious notes of everything that was said, because I could have written a book.



A-T: Who were some of your influences as producers and engineers?

AP: Every experience was an education. George Martin was a big influence. Mickey Most was a big influence. One of Mickey's great abilities was knowing when something didn't work. He'd say, *"This isn't working; we might as well go home."* That's exactly what he would do. Another influence was another British producer named Tony Hatch. The whole essence of successful record production is not just taking charge, but creating an environment with the team that's there, making a feel-good, happy experience.

A-T: Is that how you went into the studio with Pink Floyd?

AP: Oh, Pink Floyd – they loved the whole experience there. It was fun. We had some very frivolous moments. What a lot of people don't realize is that I was also out touring with them doing their live sound for about three years. They fired their regular guy and said, *"Well we might as well have the guy who's making the record do the sound for us."* And yeah, they just threw me in it.

It was interesting. I applied recording principles to it because I didn't know any better. The layout of their PA was such that feedback was an enormous problem. If you saw a Pink Floyd show in those days you would hear feedback every night. It's something that just became a part of the show. In later years they figured it out – the speakers were more directional and the microphones became better.

A-T: There are so many fascinating sides to you. At 18 walking in Abbey Road, and then your legacy with Pink Floyd, then The Alan Parsons Project.

AP: It's hugely good fortune that I managed to not suck as an engineer, because otherwise it would've been difficult to sustain a career as a sound man. If something didn't sound good, then I worked hard to make sure it did sound good.

As for live performance, Audio-Technica turned me on to the concept of a live vocal condenser mic. I didn't see how a condenser mic would ever work for vocals because of its popping and proximity effect – it just wouldn't work; but Audio-Technica managed to design ones that do work.

I also want to mention that I love Audio-Technica headphones – I haven't used anybody else's headphones in years. I've always done well with them. They're very reliable.

It's a real pleasure to work with a company that's been so kind to me and never objected to the idea of me trying out anything new, always maintained the mics beautifully and always insisted that I send them back for tune up, that's great. Audio-Technica is just a great company to work with.

(((LIVE SOUND)))



In the mid-'70s, Live Sound became Audio-Technica's passion. But it was a long, hard journey from the early days of its performance microphones 30 years ago to the widespread use of Audio-Technica's state-of-the-art wireless mics on concert stages across the various genres of the music industry today. The earliest Live Sound line targeted performing musicians looking for a great value in an affordable microphone for vocals and instruments. But like other Audio-Technica users, they often got much, much more.

During the '70s, the role of the musician in American culture had been elevated by the rapid growth in record sales, the increase in the concert business and the dramatic surge of album-oriented-rock (AOR) radio stations. All were buttressed by the increasingly popular music and fan magazines such as *Rolling Stone* and the growing number of underground, or alternative weekly newspapers that sprang up around the country. In short, musicians were the new gods. But they were nothing without their human-engineered microphones to amplify their music, lyrics, antics, attitudes and instruments.

The Live Sound market looked like an ideal place for Audio-Technica to be. However, competitors already in the Live Sound space dominated the action. A-T took its first assured steps in 1978 to find its audience with the 800 Series mic line, a mixture of dynamic and condenser stand mics, with both omnidirectional and cardioid pickup patterns, plus two lavalier (clip-on) mics.

The 800 Series initially was offered to Audio-Technica's original customer base, consumer electronics (hi-fi) dealers. The



800 Series brochure cover, 1985

1/4-inch phone plugs on the cables were intended for use with tape recorders and other equipment. However, selected products in the original 800 Series line were soon reconfigured as the Artist Series (ATM) and re-launched in 1979. Just as significant as the Artist Series introduction was the development of a dedicated sales and marketing group aimed at professional mic distribution.

“You can definitely tell an Audio-Technica gig as soon as you walk into it. Absolutely. Cleaner, crisper highs.”

Big Mick Hughes, Front-of-House Engineer for Metallica



Audio-Technica took its first assured steps in 1978 to find its audience with the 800 Series mic line, which included the AT801, AT812, AT813, and AT805S

As the line rolled out, the Audio-Technica corporate headquarters in Japan could not have predicted the illustrious fate of the company's entire mic division. After all, it was an ocean removed from the music industry boom, the Woodstocks of America and the subsequent new wave club scenes that changed rock music in the late '70s and early '80s. Enter "Uncle Charlie," who would soon perform a sales miracle at a national trade show.

"We could see the music industry growing, and we saw a place where we could produce a quality mic for a better price with better margin opportunities," remembers Bob Herrold, former Audio-Technica U.S. Product Manager for Microphones from the outset of the line launch. "Guys like Charlie Winkler – a.k.a. 'Uncle Charlie', the Marketing Manager for Music Products who, in 1978, joined to head up the new sales and marketing group – knew there was huge potential and went out and proved it."

Winkler seized one of the company's more capricious packaging moments when it issued basically the same ATM microphones but dressed them up in seven different colors with a durable aluminum

The Microphone Wardrobe™ got people's attention. Uncle Charlie took it to the NAMM show in 1981 and impressed everybody...by selling \$140,000 worth of Wardrobe mics.

carrying case and called it "The Microphone Wardrobe" (aka the MW-7). The Wardrobe got people's attention. Uncle Charlie took it to the NAMM show in 1981 and impressed everybody in the company, both sides of the Pacific, by selling \$140,000 worth of Wardrobe mics.

The following year, the PRO Series of mics hit the market, aimed again at aspiring musicians. The most famous in that line, said Ken Reichel, was the PRO 4L. "It sold thousands and thousands of mics and would show up in surveys as one of the most popular mics in music stores." Offering users handheld and instrument mics, the PRO Series also found good penetration in the contracting market for several installed sound applications. Updated through the years, the series continues to perform well for working musicians who want a quality-sounding mic without the big cash outlay. But as the '80s dawned, there was still no marquee Live Sound product.



The PRO 4L was one of A-T's most popular mics among aspiring musicians

For the performer
who has everything.



The Microphone Wardrobe™

Top artists told us what they wanted, and we listened. Our most sought-after vocal dynamic microphone, repeated in gold plate and selected matte colors. With matching cables and a professional carrying case. Vivid. Exciting. And definitely not for everyone.



audio-technica.

1221 Commerce Drive, Stone, Ohio 44224

ALWAYS LISTENING – FROM STUDIO TO STAGE AND BEYOND

In 1979-80, Audio-Technica's current American headquarters were being built in Stow, Ohio. That finally brought most of the company's divisions together under one roof, including engineering, some manufacturing, sales and marketing. "It was a much more relaxed and efficient atmosphere to do business in," Herrold said. "Our mic line started to pick up traction not long after that."

The company continued to sell successfully its headphones and stereo cartridges while trying to crack the Live Sound space. To do

so, it relied again on its established m.o. of always listening to the marketplace, trying to determine what musicians, in this case, wanted in a live microphone line. Reichel simply called it "keeping our ears unplugged."

A significant marketing breakthrough came in 1983 for the Artist Series – along with a merchandising coup in the industry. The ATM63 became a favorite of the rock band Journey. The group loved it enough to do a product poster endorsement for dealers. These types of promotions, Reichel



The ATM41 (left), ATM63 (center) and Audio-Technica's first kick-drum mic, the ATM25 (right) appeared in 1983. The ATM63 became a favorite of the rock band Journey.



Journey loved A-T products enough to do an endorsement poster for dealers

recalled, created loyalty among rock bands and dealers – “especially among the dealers, who thought it was a fresh and innovative marketing idea. They were very enthusiastic!”

According to Reichel, the '80s began “a whole series of new product introductions and innovations that lasted through the '90s.” The next measurable benchmark came in 1988, with the ATM73, a headworn microphone that was ideal for drummers, keyboard players or anyone requiring hands-free operation. It was followed by the 1000 Series a year later, the first Audio-Technica wireless system.

That same year, the company launched its first kick-drum mic, the ATM25, which became a favorite of rocker John Robinson who appeared in the “Power Tool” Audio-Technica ad for the unit. The 1000 Series wireless system hit at a propitious moment – during America’s aerobics and fitness craze. This system, along with the new PRO 8 dynamic headworn mic in 1991, became as big with aerobic instructors as spandex!

By 1990, Gloria Estefan had used and liked the ATW-1032 wireless mic so much she agreed to do an ad for it. Then she took a rack of ten 1000 Series wireless with her to tour Japan in '91. The next year, Estefan wowed the crowd during the lively half-time show of the 1992 Super Bowl, singing into an ATM63. It was the same microphone that Harry Connick Jr. had used to sing the pre-game National Anthem.

Now the company's fortunes in Live Sound were rising, buoyed by more significant endorsements from major recording artists – and the hiring of Joel Singer as the company's Live Sound liaison in 1996 to pound the pavement and press the flesh. When Singer started, then Audio-Technica U.S. VP of Sales Buzz Goodwin took him aside and gave him the talk about the company's personalized customer service direction that heavily defined Audio-Technica's value proposition. Joel, who turned out to be one of the bona fide change agents for the Live Sound division in his five-plus years with the company, was all over it.

“The ‘80s began a whole series of new product introductions and innovations that lasted through the ‘90s.”

Ken Reichel



The 1000 Series wireless system and PRO 8 dynamic headworn mic gained popularity during America's aerobics and fitness craze



Left: Gloria Estefan took a rack of ten 1000 Series wireless with her to tour Japan in '91
Right: Randy Travis' 1997 ad for the ATW-1237



“Buzz was one of the key guys who taught me that our business was as much about the interpersonal relationships and taking care of people as it was about the equipment,” Singer fondly recalled. “The equipment was great because having gear that worked and that sounded good and so forth was important. But just as important was going out and treating these people the right way.” Of course, the company’s consistent evolution with its microphone technology helped.

The 1200 Series wireless system (debuting in 1993) quickly earned a rep for its outstanding audio quality and reliable True Diversity performance. Musicians and engineers alike noted that it consistently provided better sound quality and reduced the possibility of interference and dropouts. Jazz guitarist Jeff Golub touted the merits of the ATW-1235 in a guitar ad the same year as wireless systems became increasingly popular and more sophisticated.

“Buzz was one of the key guys who taught me that our business was as much about the interpersonal relationships and taking care of people as it was about the equipment.”

Joel Singer, A-T Live Sound Liaison

In Nashville, Randy Travis liked the ATW-1237 handheld condenser enough to appear in a 1997 ad. Country and gospel superstar Amy Grant packed 80 Audio-Technica mics for her '97 Christmas tour and delivered a pageantry of sound that made her seasonal concerts an even greater experience for fans. All this support from various corners of the industry was great, but something was still missing.

The Live Sound category didn't really fully blossom until the innovations in wired and wireless that began in '98 with the frequency-agile 7000 Series wireless system, a 100-channel UHF wireless product. Retired Senior VP Fred Nichols explained: “Until then, even though we were making inroads with our Live Sound product, we were ultimately held back in the Live Sound market by the lack of a leading wireless vocal mic at the end of the '90s.”



Left: The 1200 Series wireless system quickly earned a rep for its outstanding audio quality

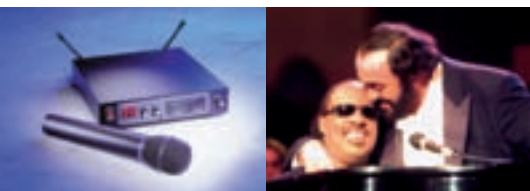
Right: The frequency-agile 7000 Series UHF wireless debuted in 1998

By 2000, things had changed remarkably. The ATW-7373 wireless was introduced and included a handheld microphone/transmitter that featured the same condenser microphone element as the legendary AT4033. The product was an immediate success, combining excellent, flexible, reliable RF performance with top-shelf audio quality. Among other applications, it was used on major tours (Backstreet Boys), in international events (2000's "Pavarotti and Friends") and in important musical presentations (2001's *My Favorite Broadway: The Love Songs*, a live-to-tape PBS "Great Performances" production with an all-star cast).

"It is essential to recognize how important the ATW-7373 was to wireless handheld performance standards at the time it was tested and introduced," Reichel points out. "Other manufacturers had condenser heads on their wireless. But no one had a world-class element (like the AT4033) installed on their wireless. It truly was a grand performer!" It was also the seed for the aptly named and groundbreaking Artist Elite Series that would appear later in 2002.

Using the same studio-quality AT4033 and AT4050 elements, a simultaneous evolution in Audio-Technica's wired mic line was happening around the same time as the ascent of its wireless line. And it grew largely out of the experience of working rock musicians in close alliance with A-T pros like Singer and others.

Sometime in 1998, Brad Madix, sound engineer for Queensrÿche and others, tried the AT4050 live on the band's guitar cabinets and was gobsmacked with the sound, quality and value. It wasn't long before other engineers followed suit. Metallica's legendary FOH engineer Big Mick Hughes mounted 4050s in front of



AP Photo/Massimo Sambucetti

Left: The ATW-7373 was an immediate success, combining excellent, flexible, reliable RF performance with top-shelf audio quality

Right: Luciano Pavarotti and Stevie Wonder from "Pavarotti and Friends"



Joe Perry of Aerosmith with AT4050s on his guitar cabinets, an unprecedented use for studio mics

his band's guitar cabs; the same move was made by Laurie Quigley for Aerosmith guitarist Joe Perry's sound. This unprecedented use for a studio mic prompted R&D to adapt the 4050 element to a handheld form factor, resulting in the delivery of the AT4054 and AT4055 vocal mics that readily served the needs of arena rockers and their peers in other genres looking for exquisite studio-quality sound for their live performances.



AT4050

This “studio-to-stage” evolution, powered by the company’s engineering prowess, culminated with the introduction of the Artist Elite line in 2002.

“These advances in Live Sound built on what we learned and produced for the Studio category,” Jackie Green noted. “It was Audio-Technica’s engineering philosophy: Build on what you know and adapt, using technology to solve problems our customers experience by giving them solutions that raise the bar in the industry. If we could make these new products even more affordable, all the better.”

This “studio-to-stage” evolution, powered by the company’s engineering prowess, culminated with the introduction of the Artist Elite line in 2002. The flagship AE5400 shared the same 4050 element as its worthy predecessors, the AT4054 and AT4055. A sibling handheld condenser, the AE3300, which utilized the element from the studio stalwart AT4033, was better suited for smaller venues. The same pattern



The AT4054 and AT4055 vocal mics readily served the needs of arena rockers and their peers in other genres looking for exquisite studio-quality sound for their live performances



Due to their unique housing design, neither the AE3000 (left) or the AE5100 (right) take up much valued space, making them a musician’s best friend in a live setting

followed in instrument mics such as the AE3000, a low-profile side-address, large diaphragm condenser, and the large diaphragm end-fire AE5100. Because of their unique housing design, neither took up much valued space onstage, making them a musician's best friend in a live setting. All the mics provided pristine studio quality sound for kick-out-the-jams live sound.

Later, after Singer recognized the need for a better kick-drum microphone, A-T engineering responded with an industry first: the dual-element AE2500. It was basically two mics housed in one casing unit that provided perfect phase alignment, with the dynamic element holding the aggressive attack of the beater while the condenser element captured the sound of the shell. It wasn't long before glowing testimonials poured in.

"The AE2500 is one of the best mics that has ever come into this business," noted Paul Owen, Metallica Monitor Engineer. "Considering so many people put condensers and dynamics together in a kick drum and never get it right, that is just an amazing bit of engineering. It's just a perfect application for what we use it for... go straight in the middle, you never go out of phase, you never have a problem."



The flagship AE5400 shared the same 4050 element as its worthy predecessors, the AT4054 and AT4055



The AE2500 was basically two mics housed in one casing unit that provided perfect phase alignment, with the dynamic element holding the aggressive attack of the beater while the condenser element captured the sound of the shell

“The AE2500 is possibly the best mic ever made,” exclaimed Front-of-House Engineer Laurie Quigley (Aerosmith, Mötley Crüe, Van Halen, Saliva and others). “It’s an incredible kick-drum mic! But I also use them on guitar cabinets. The first time I used the AE2500, I shoved it in front of a guitar cabinet just to see what it would do, and I was frightened by the sound – it was that good.”

It was hard to know which was more exciting to see unfold – Audio-Technica’s wired evolution, or its wireless revolution. The latter was spectacular for its innovation and implementation. And it set a new industry standard for wireless live sound, based mostly on the Artist Elite 5000 Series that boasted dual-compander circuitry that processes high and low frequencies separately for unmatched audio quality, a trusted characteristic

“The AE2500 is possibly the best mic ever made!”

Laurie Quigley, Front-of-House Engineer

of the growing global brand. It also utilized the company's proprietary built-in IntelliScan™ capability that automatically determined and set the best available frequencies on all linked receivers. Also equipped with Ethernet ports, the 5000 Series receiver allowed computer management and control (software included) literally from anywhere, from a front-of-the-house rack in the same room, or clear across the country, making it truly a 21st century product.

In many ways such marked advances throughout the first 30 years of the line served to cross-pollinate mic usages in multiple markets, which was not lost on past or current shakers and movers at Audio-Technica. They recognized that the ATW-7373 was, in retrospect, a precursor of the Artist Elite wireless line, just as the AT4054/4055 (1998) evolved from



5000 Series wireless mics

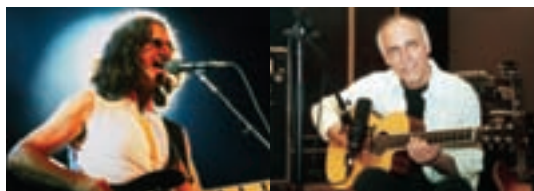


It doesn't matter who you are or what you play: Audio-Technica mics are reliable, high-quality and a great value.

the AT4050 and presaged the Artist Elite wired line. Artist Elite was aimed at the highest-level professional applications. It represented a convergence between studio and live sound and an integration of wired and wireless product performance. This harmonious sound and market convergence grew largely from the company's uncanny ability to consistently listen to end users' needs and to deliver a customer experience that exceeded expectations.

Looking back, acts as colossal as the Rolling Stones have toured the world (1998 "Bridges to Babylon" tour), flush with Audio-Technica mics, as well as multitudes of up-and-comers whose names hardly anyone knew at the time. Today, the Audio-Technica appeal has snowballed through the minds and ears of music makers everywhere. From country giants like Kenny Chesney to gospel rockers Point of Grace and head bangers such as Metallica and Linkin Park, from seductively smooth crooners like Jon Secada to jazz guitarists like Larry Carlton, it doesn't matter who you are or what you play: Audio-Technica mics are reliable, high-quality and a great value.

On many levels, the kind of rave reviews for the AE2500 from Quigley, Owen and many others represent the heartfelt reactions to the Audio-Technica mic experience in general. The company's years of hard work and struggle ultimately resulted in ongoing victories and, in the end, triumph. "You've come to the forefront," Owen noted recently. "People are copying what you do. You've become leaders." [Ⓐ]



Andrew MacNaughtan

Artists Geddy Lee (left) and Larry Carlton (right) rely on Audio-Technica mics



AN INTERVIEW WITH BIG MICK HUGHES

Big Mick Hughes, Metallica's legendary Front-of-House Engineer, is a mentor to front-of-house engineers around the world, but he's modest about his renown as an innovator. His genuine appreciation for A-T products is impossible to miss, or to mistake for a purely commercial endorsement. He sat down with us for a conversation at Tokyo's Summer Sonic music festival.

“You want a testimonial to A-T microphones? We’re still using them.”

Audio-Technica: I hear this all the time: *“Big Mick does this, Big Mick does that.”* How does it feel to be a mentor?

Big Mick Hughes: What it is, I think, is I’m afforded the luxury to try pretty much anything. When you’re working for a smaller band that doesn’t have as much funding, so to speak, they have to kind of settle with what they can scrape together, whereas I have the opportunity to try many things, and because Metallica is at the level that they are, a lot of the manufacturers want to help, and want to be involved. So I’m very fortunate that I get to try a lot of different things – things that you normally wouldn’t have the time or funding to do.

I had the prototype of the AE2500. I put it on guitar immediately after the kick drum, and found that worked really well. So then I just tell everybody that I come across, but it’s only because I’ve had the luxury (and spare desk channels) of being able to try it.

A-T: Yeah, but the reason you’ve had the luxury of being able to try it is because you’re an amazing engineer.

BMH: That’s always hard to say – after all, sound is subjective. Engineering is just a job that I do, and I just do it to the best of my abilities. In 1984, I was asked to engineer a band I had never heard of called Metallica, and that’s just what I did, and somehow still do.

A-T: You were definitely one of the first to use the AE2500 on a guitar cabinet.

BMH: As soon as I heard it on a kick drum, I just knew that would do amazing things on guitar cabs.

A-T: How did you know that?

BMH: Just because of the tonality of it on the kick drum. The thing I like about the 2500 is its purity in the midrange band. It has a massive, huge midrange sound, which is wonderful for guitar, but also equally important for a kick drum.

A-T: You developed an innovative approach for miking cymbals.

BMH: A long time ago, I got on the path of spot-miking each cymbal. That's when I put an ATM35 underneath each cymbal. When you put the microphone very near to the center of the cymbal, it gives you a parabolic mic effect; as the cymbal swings, you get [whishing sounds] as the ambient sound is focused into the mic. And also you lack a bit of the stick hitting the cymbal sound – that attack. So by moving the microphone out more to the edge, (extending the ATM35's gooseneck) to just underneath where the stick hits it, I can get the noise of the stick hitting the cymbal, and the swell of the cymbal without it sounding like a gong. This position also helps alleviate the parabolic effect by moving the mic away from the focal point of the cymbal.

A-T: What do you like about Audio-Technica microphones?

BMH: I love the mics. The vocal mics sound stunning. You can definitely tell an Audio-Technica gig as soon as you walk into it. Absolutely.

A-T: How is that?

BMH: Cleaner, crisper highs. You want a testimonial to A-T microphones? We're still using them. We don't use things we don't like – you've probably gathered that. We only take what we think is best for the band. Just the fact that they're still here is testament to the microphones' quality.

On a technical side, I think we've pretty much said everything we could ever say about each individual microphone choice. We've had this mic package for four years now. The Artist Elite series. We've roared tonally about the 2500. We've roared about the 4050s prior to that. I don't think there's much more we can say technically about the microphones. They're all really good and they sound really, really nice.

A-T: Do you wear hearing protection at all?

BMH: I can't. It makes me really nauseous. I can only wear headphones for a certain amount of time. I will put earplugs in a little bit now if I know I'm

going to be in a really noisy environment. But then I have to keep leaving the noisy environment so I can take the earplugs out. They make the inside of my ears sore. I have all the molds, obviously I have all the filters...I just can't wear them.

A-T: But you would probably suggest that other people wear them, right?

BMH: Of course. But for me, I try to limit contact, limit exposure. I think that's probably why I've managed to keep my hearing – I don't subject myself to extremes for unnecessary periods of time.

If you think about it, it's the club engineers who should be careful – really, really careful. The ratio of PA to size of venue; if you look at the size of PAs in some of these small clubs, they're absolutely enormous for the size of the room. But when you move into big environments where you can't have that awesome amount of power, then you've got to make things tonally sound big; it's more important that it sounds big, not necessarily that the volume makes it big.

Now, this is what Audio-Technica microphones give you the facility to do,



because they're so open in the high end and they go so low. They help make things sound bigger than the actual volume.

For many years, everybody thought, Wow, Metallica's the loudest band in the world. No, it wasn't. We were definitely not the loudest band. That's part of what you have to learn. That's the trade, the skill, if you like. You have to learn how to make something sound big with a reduced volume.

((BROADCAST SOUND))



Five large audio and video production trucks sit parked on the back side of the Natural Museum of History in Manhattan on a cold, 2007 December day. They dominate the block. Inside the XM Productions Remote Facility, two key players in the world of Broadcast sound are preparing for a live music performance during the “Heroes” television special for CNN, with host Anderson Cooper. Zero hour is still two days away.

“Everybody’s out to do this next phase, which is to shock people about how good Broadcast sound could be.”

Phil Ramone

Sound technician Jay Vicari, the long-time sound engineer for Saturday Night Live (SNL), and Joel Singer, Lead Engineer for XM Productions, watch the stage inside the museum. They see the show’s producers and various lighting technicians from inside the sound truck on a flat-screen TV mounted over an elaborate Pro Tools board that runs the width of the vehicle. They sit surrounded by computer screens, laptops and other equipment as colleagues come and go with production updates and little fires to snuff out.

Vicari, a Jersey native who started in the business mixing sound for rock bands like Southside Johnny and the Asbury Jukes, is a big fan of A-T. “I’ll put up a bunch of Audio-Technica mics whenever I can,” Vicari says, noting how much he loves the ATM35 clip-on mics for the SNL band because they sound great and don’t take up any room: “We have a hollow

floor space on that show that’s the size of a shoebox!”

Doors like those at SNL opened in the mid-’80s for Audio-Technica because the company again followed the proven pathway established in other sound divisions: Listen to what customers want, collaborate on creating it and help them implement it for a greater audio experience.



Left: The AT4071a was specially created to meet the long-distance pickup demands of broadcasting, film/TV sound and theater sound reinforcement

Right: ATM35 instrument mic with UniMount clip

In Broadcast, that meant developing shotgun mics like the AT815 and AT835 in 1981 and 1982, respectively, followed by the 40 Series AT4071 and AT4073 models in 1988. “We’re probably the quiet giants with shotguns,” Ken Reichel said. “We’ve had staggering sales for those mics.”

While CNN show preparations push on, Vicari points out the Audio-Technica mics used these days throughout television by Conan O’Brien (the AT4033) and Carson Daly (the AT4047/SV). “Late Night with David Letterman” has been using a customized AT4071 shotgun since ‘98. And Audio-Technica gave Rosie O’Donnell a gold-plated mic that sat on her desk during the run of her show; she took it with her when the show ended. “Now these mics are the standard on TV shows,” Vicari laughs, “where before it was like, ‘What are THESE mics?!’”



The AT815 and AT835 shotgun mics debuted in the early '80s

“The story of Audio-Technica in the Broadcast market is really the story of the little microphone company that could,” Singer adds. “Audio-Technica started out as this kind of obscure microphone company for musicians, then all of a sudden, there’s

the 4033, then there's the 4050, then the stereo shotguns, then the AE5400 and 5000 Series wireless – all these [more expensive and high performance] mics are coming out and everyone's going, 'Wow, this is a great line of microphones.'"

For more than 20 years, Audio-Technica's Broadcast mic offerings have been as expansive and innovative as they've been critical to broadcasting major events, ranging from the Grammys, the Country Music Awards (CMA) and other music award shows to Super Bowls, the Olympic Games, the Commonwealth Games, World Cup Soccer and other major sporting events.

Audio-Technica microphones have performed successfully in the category because they have been consistently reliable in extreme weather conditions and under exacting "real-time" constraints. And they're going to play an even more important role when Broadcast sound quickly evolves to meet the demands of high-definition television in the near future.

"The story of Audio-Technica in the Broadcast market is really the story of the little microphone company that could."

Joel Singer, Lead Engineer
for XM Productions



Photo courtesy Dana Edelson / Getty Images

Conan O'Brien uses the AT4033

“What makes (A-T mics) so attractive is their sonic consistency and the support from the company that was heretofore unparalleled.”

John Harris, Principal, XM Productions

The company earned its place at the Grammy Awards, both Singer and Phil Ramone recalled, in part, because it was able to supply 450 microphones for the 1998 event. These days it supplies more than 750 for both the front and back line! Ramone will even tell you that the mics simply look great on TV, acknowledging their elegant design features – besides always performing at the high end for a variety of artists and different-sized ensembles, including big choirs and renowned orchestras.

“What makes them so attractive is their sonic consistency and the support from the company that was heretofore unparalleled,” noted John Harris, a legend in the music business sound industry and a principal at XM Productions, and formerly of Effanel Music. “Supply 500 mics for a Grammy Show?! Nobody ever did that! Nobody who made real microphones ever came and said, ‘We’ll bring these things so

you can use them – and provide technical support’. That just never happened. Now every microphone company tries to do it.”

Harris should know. Besides working with superstars such as George Harrison, Eric Clapton, Peter Gabriel, Paul Simon and many others on live recordings and a host of television specials like “Eastwood After Dark,” the jazz tribute to Clint Eastwood at Carnegie Hall, Harris has been a premier live sound pro in the music business for several decades.

The first year Audio-Technica went to the Grammys, the production was held at Madison Square Garden, one of the toughest places to mic for good sound quality. Aside from making “a terrible room” sound decent, Harris and company were faced with moving from the 90-piece New York Philharmonic to the rock band Coldplay, without losing the dynamic range of either.

Justin Timberlake and Robyn Troup, winner of My Grammy Moment, perform at The Grammy Awards, 2007





Gentry Images/Scott Giers

“The fact that the choice of the engineers is Audio-Technica speaks volumes about the quality of the components and the number of times the show has won an Emmy for sound.”

Michael Abbott, Audio Coordinator for the Grammy Awards

“The miking of an orchestra performing a classical piece, then transitioning via a direct segue to performing with a rock band and the associated challenges that you deal with between the two types of music really illustrated how well Audio-Technica mics do in these types of situations,” recalled Michael Abbott, Audio Coordinator for the Grammys. “It says a lot about the capability of Audio-Technica microphones and the broad spectrum of the product line that they provide.”

Often described as the music event of the year, the live broadcast of the Grammys is akin to an excruciating climb up Mt. Everest with, as Abbott notes, “100 engineers with 5,000 patches and untold miles of cabling and supporting

infrastructure put together in two days, with down-time not an option. It’s a hellacious undertaking. And it gets more difficult every year... just because it can.”

Another sound industry veteran and guru, Abbott also equates microphone usage on the Grammys to selecting colors from an artist’s palette: “We need a variety of microphones at our disposal. Within the product line of Audio-Technica, we can get the widest variety of the palette for the scope of music that that show does – classical performances to heavy metal to everything in between. The fact that the choice of the engineers is Audio-Technica speaks volumes about the quality of the components and the number of times the show has won an Emmy for sound.”



Reuters/Gary Hershorn

AP Photo/Kevork Djanezian

Kenny Chesney, Destiny’s Child, Sheryl Crow, Jennifer Lopez and Marc Anthony, and Alan Jackson performed at the Grammy Awards using A-T mics

“The way that I approach broadcasting sound is to put as many microphones as close as possible to the athletes to capture the authenticity and subtlety of the sound and try to deliver that to an audience.”

Dennis Baxter

OLYMPIC SOUND

Audio-Technica microphones continued to appear in key awards shows from '98 through the present day, among them: the MTV Awards, the 70th annual Academy Awards, the Rock and Roll Hall of Fame induction shows, the CMAs, TV specials, such as the “Pavarotti and Friends” concert from Modena, Italy, PBS’s “Great Performances” with an all-star cast, and Emmy Award-winning sound for the A&E concert special, “Sting: Sacred Love.”

The bridge from live music to sports broadcasting was for the most part a natural development. Audio-Technica mics began leaving their mark on some of the world’s largest sporting events beginning with the music performances of Harry Connick Jr. and Gloria Estefan at the '92 Super Bowl, followed by the use of TriPoints at the 1992 Olympics in Barcelona for Broadcast sound.



An AT4073a mic at the Olympics

In the interim between the Olympic games in Spain and Atlanta in 1996, Ken Reichel made the necessary introductions to seal Audio-Technica's participation in the games, working with the Atlanta Olympic Broadcast (AOB) organization and its innovative sound designer, Dennis Baxter, today a consultant with Audio-Technica and the author of *A Practical Guide to Television Sound Engineering*.

The key challenges at the Olympics, noted Baxter, are first, ensuring the athletes' safety, and second, trying to deliver what he defines as the next standard in television sound – film sound quality: “The way that I approach broadcasting sound is to put as many microphones as close as possible to the athletes to capture the authenticity and subtlety of the sound and try to deliver that to an audience. That, to me, is the film experience...and not just for the 10,000 people that are inside the arena, but for a broadcast audience of millions worldwide.” Baxter's approach also reflects his roots in sound design, which lay heavily in his passion for recording rock bands while in high school and more than a decade of live

television sports that earned him three Emmys for technical excellence.

Until '96, broadcast of the Olympics relied primarily on shotgun microphones to capture live events. But with the resources of Audio-Technica, a greater variety of microphones were employed in Atlanta than ever before, including some that had their original application for musical instruments, like the ATM35 clip-on drum mic.



A-T mics at the Olympics

The results in Atlanta were so good that Audio-Technica mics were used in all venues for the 2000 Summer Games in Sydney, Australia.

“The mic clip was very, very useful because I could take that microphone and clip it on a mat, or clip it on a bar, or on a pole, or on a camera mount.” The ease of actually mounting and physically preparing a microphone close to the action that also looked attractive was very appealing. “It wasn’t ugly in the camera shot,” Baxter said. Audio-Technica provided more than 1,500 mics for the Atlanta Games, giving listeners at home an even greater sound experience during the competition.



AT895 mics at the Olympics

Finding creative and innovative ways to mic sporting environments, Baxter has successfully delivered the sound of action – from burying boundary mics under home plate and embedding mics in archery targets, to stitching mics into volleyball nets. He invented techniques that had never been done before in Broadcast to provide a genuine sound experience to viewers at home.

The results in Atlanta were so good that Baxter's sound engineering for the 2000 Summer Games in Sydney included A-T mics that were used in all venues. The setup included roughly 1,000 assorted microphones, including stereo shotguns designed specifically for the event (the AT815ST and AT835ST) by request from the Sydney Olympics organizers. The mics performed exceptionally well down under and re-enforced the Audio-Technica "Always Listening" mantra to meet real audio needs in markets across the globe.

Audio-Technica's stereo shotgun mics and more than 2,500 other microphones were really put to the test, however, during the 2002 Winter Games in Salt Lake City, the first time the mics were used in such severe climate conditions. "Even with warming temperatures during the day to 50 or 60 degrees, at night the mercury sank below freezing and often brought snow to many of the exposed mics," recalled Baxter. "Still, they performed like gold-medal winners."

For more than 10 years, Audio-Technica's champion line of Broadcast hardware has

been engaged in events such as the '98 Commonwealth Games in Kuala Lumpur and the 2002 FIFA World Cup. Plus the brand could be found during the opening and closing ceremonies for the 2004 Olympics in Athens and in the 2006 Winter Olympics in Torino, where Baxter employed AT4050 mics for surround sound, as well as stereo shotguns and AT4047/SVs.



Left: AT815ST and AT835ST stereo shotgun microphones

Right: The AT895 with DSP-controlled five-element microphone array



Opening ceremony for the 2004 Olympics in Athens

Baxter's use of the AT895 adaptive-array microphone for European football, "because it does a very, very good job of picking low frequencies like the kick of the ball," illustrates how A-T has remained a major innovator in the audio industry by taking chances on technology.

Using a revolutionary five-element microphone array that provides adaptive directional audio acquisition and A-T's proprietary DeltaBeam® technology, the

AT895 System manipulates and filters the output of the array by acoustical, analog and digital means. This process enhances the pickup of a sound source from a desired direction relative to unwanted background noise or interference, providing cancellation of up to 80 dB. Background interference, mechanical noise, wind noise, proximity effect – all are minimized automatically. And, unlike some attempts at directive devices, the audio quality remains wideband and natural.

“The only way to break new ground in technology is to take chances with the technology.”

Dennis Baxter

“To me, the AT895 was proof of Audio-Technica’s innovation,” Baxter says. “The only way to break new ground in technology is to take chances with the technology. That’s a very expensive product, but I also think that it has a tremendous potential, and it’s one way of bringing new technology into the marketplace. You have to look at Audio-Technica as a very broad product-based company; they don’t just pick the three or four that are huge moneymakers and force those through the system.”

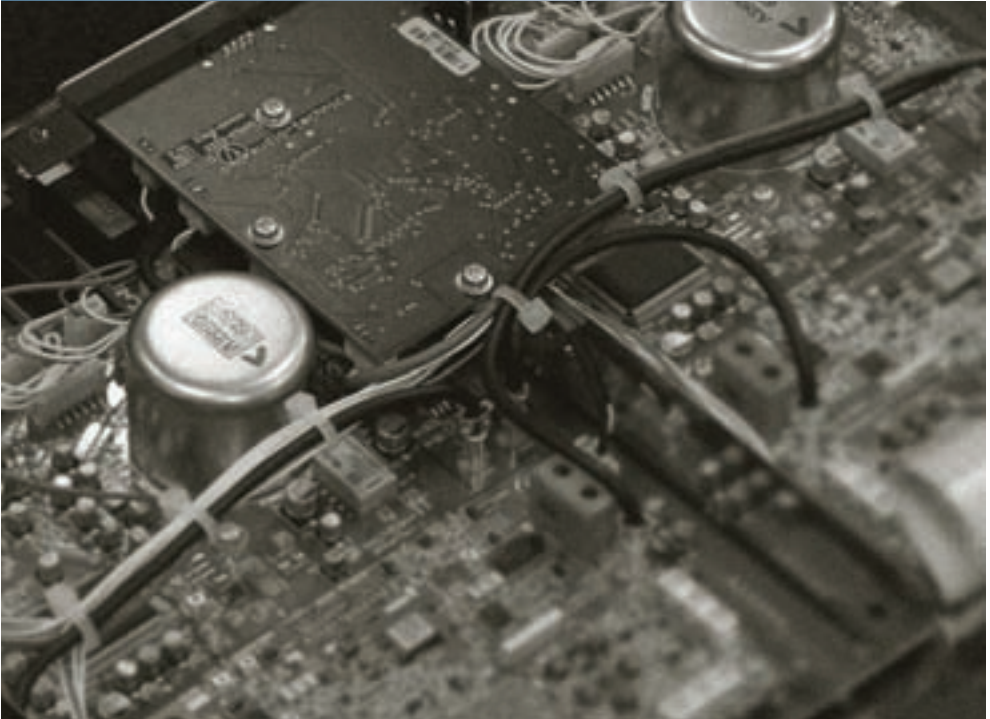
Baxter’s sentiments are echoed by Jackie Green, who, more than 10 years ago, identified the need to develop products for wide spectrum sound as the radio spectrum rapidly crowded. The SpectraPulse wireless system is a result of that vision (see Coda), as is Audio-Technica’s commitment to developing products like the AT895. “The company has consistently invested significant R&D dollars to create mics like the AT895, even if it means a long development process with no quick return on investment. I think the company both here in the U.S. and Japan understands that everything we develop is a building block to the next thing, even if it’s

not the next big thing. It’s still important; it’s the way audio technology evolves.”

As Baxter prepares for the 2008 games in Beijing, he, too, is thinking big. And he has Audio-Technica to think big with him in “trying to bring the natural sound of sport deeper into the listening space, closer to the viewer.” With almost 3,500 microphones slated for the Chinese production in surround and Hi-Def, there’s a lot riding on the final product. Still, he remains undaunted.

“Half of what people experience while viewing the broadcast Olympics is sound,” Baxter observed. “My goal is to bring the sound to life so that the viewer can authentically experience the action. I’ve got the kick of the ball. I’ve got the punch. I’ve got the chains of the bicycles. I’ve got the pitter-patter of the feet. I’ve got the landing of the shot put....” He pauses, knowing that his sound design for Beijing and the reliability and innovation that A-T brings to the world of Broadcast sound are singularly unique in the industry. “Authentic sound in the Olympics,” he adds, “is the new standard.” 🎧

(((CODA)))



Where does the Audio-Technica microphone story lead in the future? In many ways it will follow the direction it's always taken: Results-producing collaborations with end users in each market. Engineering innovations that raise the bar in the industry. Design elegance and style that turn an audio accessory into an iconic necessity. And greater value for a more sonically enhanced listening, performing and participant experience. Whether it's in the studio, live on stage, in a corporate, government or worship setting, through an HD-televised sporting or music event, or a personal Internet broadcast, Audio-Technica is going to be there.

A SOUND FUTURE BASED ON PAST EXPERIENCE

“As for the future, the markets we compete in are evolving at a breathtaking pace,” Reichel notes. “In many ways, based on how Audio-Technica advanced as a company over 45-plus years, I believe that it’s better to compete with ourselves than others.”

For the Installed Sound category, that will most likely mean steady improvements on its groundbreaking 2007 application of Ultra Wideband (UWB) technology in the SpectraPulse Ultra Wideband Wireless system. Another revolutionary innovation in the industry, UWB will continue to act as a springboard for further technological development and produce strong sales results. With 14 simultaneous channels that operate flawlessly without RF turf wars, frequency hunting/coordination, “white space” issues or interference, the system

is ideal for conferences, courtrooms and corporate events. And with further development, it may well find its way into other sound categories.

“You have to credit people in the company like Jackie Green, who recognized a major opportunity to harness wideband technology and saw the time when the government would open up the spectrum and broaden the air waves,” notes Larry Estrin, who helped with UWB product planning. “SpectraPulse is a revolutionary system that has put Audio-Technica so far ahead of competitors they may never catch up.”

Not only was Green prescient enough to see the change, early in 2000 she sought out one of the world’s leaders in

“SpectraPulse is a revolutionary system that has put Audio-Technica so far ahead of competitors they may never catch up.”

Larry Estrin



The SpectraPulse UWB Wireless Microphone System bypasses the increasingly congested RF bottleneck to deliver clear, intelligible audio without the performance and set-up issues associated with conventional wireless systems



The AT2020 USB is based on the design of Audio-Technica's AT2020 cardioid condenser microphone and is perfect for home studio recording, field recording, podcasting and voiceover use

UWB technology, Bob Fontana. It took another two-to-three years for a proof of concept, followed by three more years to get the mechanical housing right for the system: "When we started down this road, the components were nonexistent," Green recalls. "Today, all that time and a considerable amount of dollars are starting to pay off. The wireless age is going to be big for us because of our culture and where we've been. SpectraPulse is another tool in the A-T toolbox. But it's also another fine example of how Audio-Technica's utilization of technology is amassed to solve problems, sometimes even the ones we don't see coming. As for our future in UWB," she adds knowingly, "this is simply a great time to be a microphone company."

Dennis Baxter is of two minds about where it's all going in Broadcast sound. "On one hand, there are very small incremental gains in microphone technology these days. People are looking for the holy grail as the next level," he notes, "but I'm not as convinced that that is as important as having a wide variety of tools so that you can capture sound." He credits Audio-Technica for providing a tool chest rather than the single next big thing in microphones. But in the same breath, he also praises Audio-Technica for developing forward-sounding technology, showing that the company "is very progressive and always willing to take chances."

“What’s great about Audio-Technica is that they’ve always let me throw idiot ideas out there and then start to develop them in the studio or on the road.”

Phil Ramone

In both the near and long term, music broadcast events are bound to get richer and more colorful audio delivery, too. “If you have enough support from a manufacturer like we’ve had from Audio-Technica, you can put studio quality microphones on television programs like the Grammys and change the sound of music on television,” John Harris notes. And that’s what we’ve done to date, we changed the sound of music on TV. And we’ll do it again.”

In the studio and onstage, Audio-Technica microphones will continue to play a dramatic role in capturing artistic expression, regardless of genre, downloads or CD sales. Improvements and innovations will continue to attract the top artists, producers and engineers in the business as well as the home recording enthusiasts and weekend warrior musicians. “What’s great about Audio-Technica is that they’ve always let me throw idiot ideas out there

and then start to develop them in the studio or on the road,” smiles Phil Ramone.

Despite whatever future market demands and technological innovations transpire, a rudimentary truth will always prevail at Audio-Technica, one that is as old as the company itself: The importance of cultivating strong relationships within and outside the company. “You look at what’s gone on with this company and you realize it’s just a great company to deal with!” Ramone exclaims. “These are honorable people, and truly some of the most passionate that you’ll ever find on this planet as a music manufacturer. That’s why people want to be involved with Audio-Technica. It’s that simple.” @

