SUBSCRIBE

DOUG NEWCOMB 07.19.12 6:15 AM

# FROM EIGHT-TRACK TO BLUETOOTH: IN-CAR ENTERTAINMENT'S BUMPY RIDE



UNLESS YOU'RE A gearhead who only listens to exhaust notes and engine sounds, you probably like a little entertainment while behind the wheel. And these days you have more choices than ever: music and podcasts and audiobooks on iPods or USB drives, streaming music services like Pandora and Spotify, CDs and DVDs if you still have a physical-media fetish and, of course, good-old AM and FM radio.



The evolution of in-car entertainment technology has paralleled consumer electronics by slowly allowing drivers to have more control over content. But automakers have sometimes been sluggish to adopt new technologies, which explains why the aftermarket led the way for so many years. And why it took some car companies almost a decade to add proper iPod integration (an aux-in jack doesn't count) to their vehicles.

But now many automakers have learned that technology sells and have stepped up their electronics game. And with internet connectivity coming to more vehicles, a new era of in-car entertainment is about to begin – much to the alarm of Luddites, government regulators and anti-distracted-driving advocates. But looking back at how we got here, crying wolf about car tech is as old as the first radio.

#### The AM Radio

A \$130 AM model from the Galvin Manufacturing Company (which later morphed into Motorola) was supposedly too distracting to drivers when it was introduced in 1930. But then safety advocates also said the same thing about rearview mirrors when they debuted about a decade earlier, and there's no conclusive proof that vanity has led to a large number of motorist deaths.

Photo: Motorola Archives





### The FM Radio

AM ruled in cars – and pretty much everywhere else – until the early '70s, maybe because there weren't enough FM stations and cool-sounding DJs (or drugs) available before then. But that didn't stop Becker from introducing the Mexico in 1953, the world's first AM/FM car radio. Now a collector's item among meticulous classic-car restorers, the Mexico was the first wave of FM technology in vehicles. But most U.S. cars didn't come with AM/FM radios in the dash until the '70s, so the aftermarket came to the rescue with compact FM tuners that mounted below the dash and let the more adventurous tune in to cutting-edge rock stations – now packaged as classic rock.

Photo: Courtesy MBZ Ponton website







## The 8 Track

The 8-track tape player (jointly introduced into cars by Ford and Motorola in 1965) let drivers decide what to listen to while behind the wheel and not be at the mercy of radio DJs and annoying commercials. Instead, they were at the mercy of a clunky technology that became a Me-decade icon and helped launch '70s bands from Aerosmith to Bread. Beside the



listening to a long song – say Led Zeppelin's "Dazed and Confused" – you have to be prepared for your jam to pause, since it would fade out and then fade back in when the tape switched "programs" with a loud mechanical click.



# The Cassette

The cassette player eventually offered better fidelity than the 8-track, and the cartridges were more convenient to carry in the car. Cassettes were still far from the ideal media for the harsh automotive environment and could easily succumb to baking if left in direct sunlight. But the cassette added a phrase to the cultural lexicon that is a musical touchstone to this day: the mix tape, wherein the creator could subject others to his sonic tastes. Pictured above is the apex of the car cassette player, the Nakamichi TD-1200, the automotive version of Nak's coveted Dragon deck, which some audiophiles claimed was superior to early CD players of the late '80s.



# DOCKET

# Explore Litigation Insights



Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

# **Real-Time Litigation Alerts**



Keep your litigation team up-to-date with **real-time** alerts and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

# **Advanced Docket Research**



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

# **Analytics At Your Fingertips**



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

#### API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

#### **LAW FIRMS**

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

#### **FINANCIAL INSTITUTIONS**

Litigation and bankruptcy checks for companies and debtors.

### **E-DISCOVERY AND LEGAL VENDORS**

Sync your system to PACER to automate legal marketing.

