

Q. Why are AM radios banished from motor vehicles?

A. Electromagnetic interference of EVs causes static in AM radios.

"BMW and Volvo told me it was due to audio quality problems rooted in electromagnetic interference, of which EVs' [electric vehicles] drivetrains produce a significant amount."

– "Auto-Makers are Starting to Drop AM Radio In New Cars. Here's Why," by Reporter James Gilboy

AM Radio Protection Bill¹ in Congress

"AM radio for Every Vehicle Act of 2023" by Senator Ed Markey (D-Mass.) was introduced into the Senate Commerce, Science and Transportation Committee May 18, 2023. Committee ranking member Senator Ted Cruz (R-Texas) and Senator Markey are leading nine other members of Congress from both parties in support of the Act.

Provisions: Within a year after this becomes law, the Secretary of Transportation and Federal Emergency Management Agency Administrator must jointly issue a rule that requires:

- Devices that can receive signals and play content transmitted by AM broadcast stations must be installed as standard equipment in motor vehicles manufactured in the U.S., imported into the U.S., or shipped in interstate commerce after the effective date of the rule;
- Dashboard access to AM broadcast stations must be installed and conspicuous to the driver. After the rule takes effect, manufacturers may comply by installing devices that are capable of receiving signals and playing content transmitted by digital audio AM broadcast stations as standard equipment in vehicles manufactured in the U.S., imported into the U.S. or shipped in interstate commerce.

Interim Requirement

Between the date the Act is enacted and the effective date of the required rule, motor vehicles manufactured in the U.S., imported into the U.S. or shipped in interstate commerce shall have clear and conspicuous labeling to inform buyers that the vehicles do not include devices that receive signals and play content via AM broadcast stations.

Penalty for Non-compliance

The U.S. Attorney General may sue violators in the appropriate U.S. district court.

Mandatory Research Study

The Comptroller General (CG) must study and assess whether an alternative system could:

- Reliably resiliently deliver to drivers and passengers alerts and critical information from the Integrated Public Alert and Warning System as currently provided by AM radio.
- Reach 90 percent of the U.S. population in crises and at night as AM radio does.
- Assess the cost to drivers and passengers to receive communications via another system.

ACTION – Support. Ask senators and representatives to support AM radio by text AM52886 and/or call 1 877 762-8762. That number goes to a switchboard whereby you may and ask to be connected with senators and representatives.

¹ At this writing, no number has been assigned, but the 9-page pdf is available online by the title of the bill.

Personal Experience: A “Fix” for My Washing Machine

This reminds me of the time my washing machine died and I replaced it with a Speed Queen Commercial Heavy Duty model, which caused static on my Bose AM radio in the kitchen. Since the old machine didn’t cause static, obviously, it had a “fix” Speed Queen didn’t provide. After I explained the problem to the appliance salesman, he reported the situation to the Speed Queen manufacturer, whose response indicated he knew nothing about such a thing. Week after week, as the machine washed on laundry day, I called the salesman and held the phone to the radio, so he could hear the static. After several weeks, the receptionist commented to the salesman, “Y’all have really bonded!” He wryly said, “Thursday is laundry day.”

After my consistent complaining and the salesman’s constant calling, the company, actually, finally, admitted that the machine caused the static and sent a repairman to fix it. When he came, I watched him quickly open the control panel and insert a small part into its ready-made spot. The static stopped! When I relayed the good news to the salesman, he said, “I’m gonna get another one of those parts in case I sell another Speed Queen washing machine.”

Moral of my story: If the static caused by my washing machine was fixed with a small part that was left out when the washer was built, there is or could be a “fix” to eliminate AM radio static caused by electromagnetic pulses emanating from the EV drivetrain.

Similar experience: When one of six ballasts in my all-florescent ceiling “exploded,” it had to be replaced with a newer model, which caused static on my AM radio broadcast. Obviously, the old ballasts did not emit electromagnetic interference, but the new one did. What to do? The electrician removed all of the old ballasts (though they were still working) and inserted six no-ballast-needed florescent lights. Evidently, new florescent ballasts need a “fix” too.

AM & FM Differences

“FEMA’s National Public Warning System – through which FEMA delivers critical safety alerts to the public – operates through broadcast AM radio stations.”

– Senator Ed Markey (D-Mass.)

- Amplitude Modulation (**AM**), operates at a lower frequency than FM, has an extremely large wavelength and poorer sound quality, but covers longer distances – especially at night. It caters to sparsely populated areas and is less expensive to transmit.
- Frequency Modulation (**FM**) has better sound quality than AM and less sensitivity to interference from electric storms or electric devices. FM’s much higher frequency has a much smaller wavelength which can fit into tighter spaces.

Importance of AM Radio

Senator Cruz explained, “AM radio is a critical bulwark for democracy, providing a platform for alternative viewpoints and the ability for elected officials to share our efforts with our constituents.”

Senator Markey stated, “Automakers may not understand the importance of AM radio, but its benefits are obvious to the 47,000,000 Americans who tune in every week. Unlike FM radio, AM radio operates at lower frequencies and longer wave lengths, enabling it to pass through solid objects and travel further than other radio waves.”

Despite certain damage to more than 4,000 U.S. AM stations and workers, BMW, Volkswagen, Mazda and Tesla leave AM radios out of some EVs. Ford’s new vehicles, gas or electric, will have no AM radio. Eight of 10 companies Senator Markey contacted plan to dump AM radios.

40-Day Load for Legislators

During this year's 40-day legislative session, Georgia's 56 senators and 180 representatives introduced a total of 1,181 bills – 2 were pre-filed, 5 were defeated or withdrawn, 364 passed. The Governor signed 350 and vetoed 14. The remaining 810 bills remain alive for the next Legislative Session that begins the second Monday of next year, January 8, 2024.

- **Bills:** Of the 269 *House bills* that passed, 87 were general bills and 182 affect local areas of the State. Of the 95 *Senate bills* that passed, 66 were general bills and 29 have local effect.
- **Resolutions:** Of 1,190 resolutions introduced, 1,016 were adopted – 652 in the House and 364 in the Senate – 173 carry into 2024, 1 lost or was withdrawn. The resolution process is used to propose constitutional amendments and/or honor individuals, organizations, etc.
- **Totals:** During the 40-day session, legislators introduced a total of 2,371 bills and resolutions. The State Constitution gives the Governor 40 days after the session ends to sign or veto any of the 364 bills passed. Therefore, on April 4th, four working days after the session ended March 29, 2023, Governor Brian Kemp exercised his constitutional authority and vetoed H.B. 319. On May 5th he vetoed 13 additional bills. Of his 14 vetoes, ten are House bills and four are Senate bills. Excerpts from his explanations for his vetoes follow.

Georgia Governor's Veto Power

“Veto Power. Except as otherwise provided in this Constitution, before any bill or resolution shall become law, the Governor shall have the right to review such bill or resolution intended to have the effect of law which has been passed by the General Assembly. The Governor may veto, approve, or take no action on any such bill or resolution. In the event the Governor vetoes any such bill or resolution, the General Assembly may, by a two-thirds’ vote, override such veto as provided in Article III of this Constitution.”

Constitution of the State of Georgia, Article V, Section II, Paragraph IV

- The *Constitution of the State of Georgia* authorizes the Governor to sign or veto bills and resolutions passed by legislators within 40 days after the session adjourns sine die.
- No bill or resolution is transmitted to the Governor except upon his request or by order of two-thirds of the House and Senate. Bills that pass may become law without his signature.
- Legislation vetoed during the legislative session may be, immediately, overridden by two-thirds’ majority of both House and Senate, after which it becomes law. Legislation vetoed after the session adjourns sine die may be overridden during the next legislative session.
- **Line-Item Veto**
“The Governor may approve any appropriation and veto any other appropriation in the same bill, and any appropriation vetoed shall not become law unless such veto is overridden in the manner herein,” *i.e.* a line-item veto may be overridden by the same process.

Vetoes 1 -2

H.B. 319 Abolish Georgia Higher Education Assistance Program The Georgia Constitution makes plain the authority to govern, control, and manage the University System and all system institutions is vested in the Board of Regents. Because of the constitutional reservation of authority in the Board of Regents, the legislation cannot be adopted without a state referendum.

H.B. 52 Department of Transportation, Meetings for Election of Board Members is a house-keeping bill brought at the request of the Georgia Department of Transportation. A late amendment altered certain provisions of the bill and prompted this veto.

Veto 3 - 14

H.B. 169 Carroll County Board of Education proposes to change compensation for members of the Carroll County Board of Education. *At the request of the sponsor, I VETO H.B. 169.*

H.B. 193 Local Government Contracts and Requirements affects the value of local government public works contracts. As a general matter the State must competitively bid any construction or public works contract over \$100,000. There is no reason local government bidding requirements should be more lenient than state-issued contracts.

H.B. 249 Education, Needs Based Program includes proposals subject to appropriations and the General Assembly failed to fully fund these educational incentives.

H.B. 317 State Employee Life Insurance would allow beneficiaries to assign a deceased state employee's life insurance and pension benefits to entities that would place families at risk of assigning away important benefits without fully realizing the long-term costs of such decision. Georgia law already allows beneficiaries to use such funds for expenses as they see fit.

H.B. 541 Procedure for Passing Postal Service Vehicle originally expanded the "move over" law only to stationary postal service vehicles in keeping with the law's scope of protecting public service workers. However, it was amended to cover all vehicles displaying flashing hazard lights even if such vehicle is unoccupied.

H.B. 611 Budget, Disposition of Certain State Funds would add an unnecessary hoop for the state to jump through to meet its legal obligations.

H.B. 680 Thomasville City Council and Board of Education Districts would reapportion their electoral districts. *At the request of the sponsor, I VETO H.B. 680.*

H.B. 774 Compensation of Irwin County Commission changes members' salary, provides for appointing a county administrator, and revises provisions for appointing a superintendent of roads and bridges for Irwin County. *At the request of the sponsor, I VETO H.B. 774.*

S.B. 23 Surprise Billing, Consumer Protection Act was amended to require the Office of Planning and Budget Director to "consult with the chairperson of the Senate and House Appropriations committees prior to making a final determination," which raises separation of powers concerns under the Georgia Constitution.

S.B. 164 Nurse Licensure Expansion would create professional licenses for advanced practice registered nurses, and anesthesiologist assistants and revise the composition of the Georgia Composite Medical Board. *At the request of the sponsor, I VETO S.B. 164.*

S.B. 199 Council to Establish Health Savings would include health savings accounts (HSA) funding through automatic salary deductions. While I support expanding benefits to our state employees, I cannot do so without a clear understanding of the financial implications.

S.B. 303 Ad Valorem Taxes, Fulton County Seniors Must Reapply does not provide for the constitutionally required new referendum for approval of such change.

¹ Excerpts: "Governor Brian P. Kemp, 2023 Session of the Georgia General Assembly Veto Messages & Signing Statement" 404 656-1776 or online at gov.georgia.gov.