

May 19, 2023

Chris Bither
Poland, Maine
LD 1911

To: Members of the 131st Maine Legislature Committee for Innovation, Development, Economic Advancement and Business

I am writing to express my support for LD number 1911, An Act Concerning Automotive Right to Repair. Before relocating to Maine a few years ago, I worked for and retired from a domestic automotive OEM as a Product Development Engineer where I was located at the corporation's Michigan proving grounds. My primary responsibilities included development for key product characteristics of chassis and suspension components/systems for multiple product lines over several decades. Included in this was development of software and calibrations for electrical power steering controllers, electronic brake controls, and integration of those controllers with additional controllers dependent upon each other to transmit and receive messages on the vehicle's controller area network (CAN) bus. In my career I worked with four generations of corporate template CAN architectures, where the latest is still used in production today. Additional responsibilities included assessing and benchmarking like vehicles from competitive manufacturers. Most new vehicles operate with multiple CAN buses; high speed, low speed, and single wire for examples.

LD 1911 essentially describes the CAN diagnostic service physical and virtual tools made available to OEM affiliated dealers, OEM affiliated fleet service, and non OEM affiliated service entities by automotive OEMs that I worked for or analyzed. Reference Attachment 1 for an example of one OEM's service programming and diagnostic software descriptions and how to obtain. Reference Attachment 2 for an example of an OEM specific CAN interface tool for vehicle diagnostics and service programming of control modules. There should be an analysis of the LD 1911 wording though in regards to service providers since there are numerous fleets (rental, law enforcement, telecommunication, leasing, etc.) which have contractual agreements with OEMs to provide their own service, warranty, and recall work without use of an OEM franchised dealer, and there is currently one specific domestic OEM which does not have franchised dealers and coordinates warranty and recall service for customers themselves.

Automotive service entities not affiliated with an OEM have options to use 3rd party subscription service providers to pool resources and make CAN diagnostic and service programming work more cost effective to themselves and relieve the burden of single entity costs for subscription to multiple OEM diagnostic software packages. Reference Attachment 3 for an example.

In reference to verbiage in LD 1677 and testimony asserting there are OEMs that use only telematics to transmit and receive messages for CAN diagnostics and service programming to the OEM, primarily due to systems or a complete vehicle which does not need to be OBD-II compliant per Federal EPA, that is a false narrative. Vehicle CAN networks have hardwired connectivity. There are access ports for each CAN bus to obtain transmitted and received messages for each control module. There are some sensors such as tire pressure, keyless remote, and object detection which operate intra vehicle wirelessly, but their related in vehicle control modules are hardwired within their specific operating CAN. The access ports may not be what is referred to as the traditional OBD-II port near steering column, also known as ALDL (assembly line diagnostic link), rather a manufacturer specific connector in a non-standard

location. Example, connection to high speed CAN in a Tesla is a manufacture specific connector located in center of forward dash behind a removable panel.

If access to any of the vehicle's CAN systems were only via telematics to some remote location and there was a failure within the system for communication, then there would be no means to perform any service diagnostics. There is no specific need to perform service diagnostics and programing via remote telematics other than convenience. To attempt to create standardized CAN architectures for vehicle OEMs mandated by a single state as described in LD 1677 is not realistic. All vehicles do not have common system components, control modules, and suppliers. OEM's spend years and untold amounts of capital to engineer, develop, and validate vehicles using thousands of engineers, technicians, multiple suppliers, and prototype hardware which no state would logically have resources to oversee. Standardized CAN architectures between OEMs and unrestrained remote telematics access to the vehicle's CAN networks would enable a 3rd party to unlock control modules via a seed and key which would be easily obtained, "crack" manufacturer validated software and calibrations for various control modules and circumnavigate federal safety and emission compliance via non VIN specific flashing of control modules.

If LD 1677 or equivalent citizen referendum were to pass into law rather than this competing LD 1911 there would certainly be litigation against the State of Maine over the remote telematics standardization and access, and if it were to survive the likely litigation a few likely OEM reaction scenarios are:

- A. No new motor vehicles would be sold in the State of Maine having services that rely on remote telematics. No GPS service, no remote start or door locks, no safe and secure monitoring for air bag deployment or theft. No remote service programing to avoid trips to and time spent at a dealer. Reference recent Subaru sales and delivery in State of Massachusetts where an identical referendum was passed and currently in litigation. Several fleets I have worked with need the OEM telematics system for Fleet Management.
- B. New motor vehicle dealers in Maine that are part of multi state operations would devise systems to consider a new vehicle as delivered and sold elsewhere before being transported to Maine at buyer's direction. OEMs will end some of their franchise contracts with dealers in Maine.
- C. Some OEM's will bypass the use of new car dealers and dealer service centers in Maine and use the Tesla model for sales delivery and service.

Thank you,
Chris Bither
Poland, Maine

Attachment 1

5/19/23, 2:12 AM

ACDelco TDS

TECHNICAL DELIVERY SYSTEM

ACDelco Technical Delivery System is General Motors' service information, diagnostics, and service programming portal to the automotive aftermarket. We share a common goal with you about delivering the best services possible to our customers. The offerings available through this portal are established to satisfy your varied business needs.

SUBSCRIPTIONS

Accurate and efficient vehicle diagnosis and repair is a corner stone for any vehicle repair facility. ACDelco Technical Delivery System has multiple subscription offerings to fit your service and diagnostic vehicle repair needs. Service information gives you access to all documentation for repairing General Motors' manufactured vehicles. Diagnostics enable you to communicate with General Motors vehicles. Service programming enables you to download and update module calibrations. To assure proper software functionality, please assure your computer hardware meets our [system requirements](#).

Programming

Service Programming System (SPS) Includes 24 month access to program all modules for one vehicle (VIN)	Select	*	<input type="button" value="ADD TO CART"/>
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Diagnostics

GM Light Duty Global Diagnostics 2-GDS 2 (Includes OAW Data Bus Diagnostic Tool) Covers Chevrolet Light Duty Trucks Vehicles Covered:	3 Days \$54.00 1 Month \$254.00 1 Year \$944.00	Select	*	<input type="button" value="ADD TO CART"/>
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Freightliner Global Diagnostic Software This subscription covers the diagnostic scan tool software for Freightliner XXXX Trucks.	3 Days \$54.00 1 Month \$254.00 1 Year \$944.00	Select	*	<input type="button" value="ADD TO CART"/>
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Tech2Win Includes Software to emulate the Tech 2 on PC	3 Days \$52.00 1 Month \$202.00 1 Year \$916.00	Select	*	<input type="button" value="ADD TO CART"/>
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GM Medium Duty Global Diagnostics 2-GDS 2 (Requires Light Duty GDS 2 Subscription First) Covers Chevrolet Medium Duty Trucks	3 Days \$92.00 1 Month \$352.00 1 Year \$990.00	Select	*	<input type="button" value="ADD TO CART"/> <small>Must already be subscribed to GM Light Duty Global Diagnostics 2-GDS 2</small>
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Global Diagnostic System (GDS2) + Tech2Win Includes: GDS 2 and Tech2Win are used to diagnose automotive electronic systems	1 Year \$808.00			<input type="button" value="ADD TO CART"/>
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Tech 2 Diagnostic Software (This purchase is non-refundable) North American version 33.004 Released Aug. 14 2013	1 Time Download \$276.00			<input type="button" value="ADD TO CART"/>
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Service Information

General Motors Service Repair Manual Information (does not contain software) Campaigns & Bulletins from 1960 to present Unit repair manuals from 1987 to present Service manuals from 1999 to present Owner manuals from 2000 to present GM Mode & Data & OBD-II Diagnostic Parameters	3 Days \$22.00 1 Month \$166.00 1 Year \$1,344.00	Select	*	<input type="button" value="ADD TO CART"/>
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Techline Connect

Techline Connect Single application which integrates service information, programming and scan tool diagnostics Applies as shown in USD	1 Year \$4,328.00			<input type="button" value="ADD TO CART"/>
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Attachment 2

5/18/23, 10:36 PM

EL-52100-AM - GM Multiple Diagnostic Interface 2 (MDI 2) KIT

Home | English (Global Default) | My Preferences | Register | Login

Keyword / Tool Number Search

Search Tips

My Wish List | Quick Order | Shopping Cart 2

Welcome | Special Service Tools | Software Downloads



EL-52100-AM
GM Multiple Diagnostic Interface 2 (MDI 2) Kit

Estimated Ship Date
2023-06-21

Qty:

USD \$706.70 per unit

Important Notice
Due to component delays, EL-52100-AM orders will be processed with delays well into 2023. We apologize for the inconvenience.

NOTE: GM Dealers: Order Product #EL-52100

[Continue Shopping](#)

Details Kit Info Support

Descriptions:

Additional Product Details

The Multiple Diagnostic Interface 2 (MDI 2) is used by professional technicians as an aid in diagnosing and repairing automotive electrical and electronic systems. The MDI 2 is designed to connect the vehicle to a host PC computer application, which then functions through the MDI 2 for data transfer and Electronic Control Unit (ECU) reprogramming.

The newest pc-based GM Multiple Diagnostic Interface (MDI 2) offers increased processing power, security, and faster programming speeds on Global A and future Global B vehicles.

The MDI 2 supports diagnostic applications: GDS 2, Data Bus Diagnostic Tool, and Tech2Win. It also supports Pass-Thru programming applications: TIS2Web-SPS. It replaces the first generation MDI, introduced in 2007, for Pass-Thru programming on current GM models. The MDI 2 is backward compatible, so it can be used to perform Pass-Thru programming on all vehicles built since 1996 by means of the J1962 connector using a DLC cable. Connection between the MDI 2 and the PC can be accomplished via standalone (USB) and the dealership network (CATS).

Features:

- Uses a new, more secure Type B connector and Ground Offset Failure protection. A wired connection is recommended for longer programming events.
- The MDI 2 is powered from the vehicle battery via the DLC Cable. It may also be powered over USB to perform firmware updates only using a PC.
- Uses USB 2.0 for faster firmware downloads instead of a separate AC power supply.
- The DLC cable is twice as long as the previous cable and connects at the top, making it easier to use. The cable only connects to the MDI 2.

Kit Includes Components:

- MDI device
- DLC Cable SAE J1962
- 16-ft. USB A to USB B Cable
- Ethernet Cable
- Two pcs. of D-Link Wireless USB Adapters (Dongles) for wireless connection

Service:

- Multilingual support hotline for hardware problems and questions
- Exchange process (within the warranty period) when your hardware develops a fault, reducing downtime.
- 2 year supplier warranty

Please see "Multiple Diagnostic Interface 2 User Guide" under EL-52100-AM for further instructions.

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Attachment 3

5/18/23, 10:44 PM

IVS 360™



IVS 360™ Support

Remotely Add our Brand-specific Master Technicians to Your Team

IVS 360 support offers live repair guidance and remote programming services to help you fix complex vehicles safely and efficiently.

Why You Should Never Have to Turn a Job Away Again

Opus IVS' master technicians trained with the major vehicle brands, so they have first-hand knowledge of OEM-specific troubleshooting strategies.

Our team of over 100 experts - based in seven call centers worldwide - remote directly into vehicles so they see the same data you can.

Your teams can learn new skills as IVS 360 technicians guide you through complex procedures.

Real-Time Expert Support from IVS 360

- ◆ **Live Repair Guidance:** Get support from an OE brand-specific master technician for all major U.S. domestic, Asian and European brands
- ◆ **Remote Programming Services:** Have confidence in programming results after our IVS 360 Technicians have remotely programmed even the most complex vehicle modules
- ◆ **ADAS Calibration Support:** Ensure ADAS calibrations are completed correctly with step-by-step guidance from IVS 360 technicians
- ◆ **OE Scan Support:** Have remote scans carried out quickly by our experts using OE tools and software – and receive both a summary and complete report

