

D24M2

Creation Date: 06/26/2024

**Subject: Field Service Campaign D24M2
DETROIT® ePowertrain™ eCPC Reprogramming**

Models Affected					
Make	Model	Model Yr. Start	Model Yr. End	Prod. Start Date	Prod. End Date
Detroit Diesel Corporation	400.EM2 400.EP4 410.EM2 410.EP4	2023	2024	August 26, 2020	April 26, 2024
Freightliner	eCascadia eM2	2023	2024	August 26, 2020	April 26, 2024
Identifying Feature	Detroit ePowertrain eCPC Software Reprogramming				

General Information

On behalf of the DETROIT™ Diesel Corporation listed below, Daimler Truck North America LLC (DTNA) has decided that a motor vehicle improvement exists, and a new feature is beneficial in allowing 6x4 eP4 and eM2 vehicles to continue moving in a limp home mode in the event of a hardware failure. DTNA is initiating a Field Service Campaign to modify affected vehicles.

- Detroit Diesel Corporation
- Freightliner Trucks Division

PROBLEM: The new eCPC software improvement was developed to allow vehicle to continue moving in a limp home mode in the event of a hardware failure.

SOLUTION: These vehicles will need the eCPC reprogrammed.

There are approximately 457 vehicles involved.

Additional Repairs

Dealers must complete all outstanding Recall and Field Service campaigns prior to the sale or delivery of a vehicle. A Dealer will be liable for any progressive damage that results from its failure to complete campaigns before sale or delivery of a vehicle.

Owners may be liable for any progressive damage that results from failure to complete campaigns within a reasonable time after receiving notification.

Please contact Warranty Campaigns for consideration of additional charges prior to performing the repair.

Work Instructions

Please refer to the attached work instructions. Prior to performing the campaign, check the vehicle for a completion sticker (Form WAR261).

D24M2

Creation Date: 06/26/2024

Replacement Parts

If our records show your dealership has ordered any vehicle(s) involved in campaign number D24M2, a list of the customers and vehicle identification numbers will be available on DTNA Portal. No parts are required for this repair.

IMPORTANT - After Repair is Complete:

Attach a black completion sticker (WAR261) to the base label (WAR259).

If the vehicle does not have a base label, clean a spot on the appropriate location, and attach a base label, prior to attaching the completion sticker.

If a campaign kit is not required, write the campaign number on a blank sticker, and attach it to the base label.

(Failure to install a completion sticker may result in a chargeback of the campaign claim.)

Claim Reimbursement - Labor Allowance

IMPORTANT: OWL must be viewed prior to performing the recall to ensure the vehicle is involved and the campaign has not been previously completed. Also, check for a completion sticker prior to beginning work.

You will be reimbursed for your parts, labor, and handling (landed cost for Export Distributors) by submitting your claim through the Warranty system within 30 days of completing this campaign.

- In OWL, use the 'Retrieve' function and select the appropriate procedure. This will auto-populate the PFP component code, replacement parts, cause, corrective action and SRT code in OWL.

Table 1 - Claim Reimbursement Table

Claim Type	Field Service Campaign
Campaign	D24M2
VMRS Component Code	037-001-006
Cause Code	A1 – Campaign
Primary Failed Part	DDC REPROGRAM4

Procedure	Time Allowed (hours)	SRT Codes	Corrective Action
ECPC, REPROGRAM, D24M2	0.4	996-F219A	12-Repair Recall/Campaign

D24M2

Creation Date:

06/26/2024

Claim type is Field Service Campaign.

- In the Campaign field, enter the campaign number and appropriate condition code D24M2-A.
- In the Primary Failed Part field, enter DDC REPROGRAM4.
- In the Labor section, enter the appropriate SRT from the Labor Allowance Table. Administrative time will be included automatically using SRT 939-6010 C, for 0.4 hours (for RVs), A for 0.3 hours (for all other vehicles).
- The VMRS Component Code is 037-001-006 and the Cause Code is A1 - Campaign.
- U.S. and Canada – Reimbursement for Prior Repairs. When a customer asks about reimbursement, please do the following:
 - Accept the documentation of the previous repair.
 - Make a brief check of the customer's paperwork to see if the repair may be eligible for reimbursement. (See the 'Copy of Owner Letter' section of this bulletin for reimbursement guidelines.)
 - Submit an OWL Pre-Approval Request for a decision.
 - Include the approved amount on your OWL claim in the Other Charges section.
 - Attach the documentation to the pre-approval request.
 - If approved, submit a 'based on claim' for the pre-approval.
 - The Dealer is required to reimburse the customer the appropriate amount.

IMPORTANT: OWL must be viewed prior to performing the field service campaign to ensure the vehicle is involved and the campaign has not been previously completed. Also, check for a completion sticker prior to beginning work.

U.S. and Canadian dealers, contact the Warranty Campaigns Department via Web inquiry at DTNAPortal.com/WSC, if you have any questions or need additional information. Export distributors, submit a Web inquiry or contact your International Service Manager.

The letter notifying U.S. and Canadian vehicle owners is included for your reference.

D24M2

Creation Date: 06/26/2024

Copy of Notice to Owners

**Subject: Field Service Campaign D24M2
DETROIT® ePowertrain™ eCPC Reprogramming**

Daimler Truck North America LLC (DTNA), on behalf of its Detroit Diesel Powertrain Division, has decided that a motor vehicle improvement exists, and a new feature is beneficial in allowing 6x4 eP4 and eM2 vehicles to continue moving in a limp home mode in the event of a hardware failure.

Models Affected					
Make	Model	Model Yr. Start	Model Yr. End	Prod. Start Date	Prod. End Date
Detroit Diesel Corporation	400.EM2 400.EP4 410.EM2 410.EP4	2023	2024	August 26, 2020	April 26, 2024
Freightliner	eCascadia eM2	2023	2024	August 26, 2020	April 26, 2024
Identifying Feature	Detroit ePowertrain eCPC Software Reprogramming				

A Daimler Truck North America authorized service facility will perform software updates to eCPC. The Field Service Campaign will take approximately 0.7 hours and will be **performed free of charge**, prior to **June 26, 2025**, under the provisions of this notice.

Please contact an authorized Daimler Truck North America dealer to arrange to have the field service campaign performed. To locate an authorized dealer, search online at <https://northamerica.daimlertruck.com/contact-us>. Scroll down to “Locate a Dealer” and select the appropriate brand.

You may also confirm your vehicle’s involvement in this recall at the following URL:
<https://dtna-dlrinfo.prd.freightliner.com:48518/VinLookup/vin-module/getVinLookupPage>.

To reduce downtime and ensure the repair facility is prepared to complete the repair upon your arrival, please make an appointment in advance. Having an appointment enables the repair facility to order and receive the parts required for the field service campaign.

Progressive damage could result from delayed completion of this campaign. To ensure vehicle functionality, and optimal performance are not compromised, DTNA highly recommends having the campaign completed as soon as possible. To avoid incurring additional downtime and expenses from progressive damage please complete the campaign in a timely manner.

We have taken this action in the interest of your continued satisfaction with our products.

WARRANTY CAMPAIGNS DEPARTMENT

Enclosure

D24M2

Creation Date: 06/26/2024

**Subject: Field Service Campaign D24M2
DETROIT® ePowertrain™ eCPC Reprogramming**

Models Affected					
Make	Model	Model Yr. Start	Model Yr. End	Prod. Start Date	Prod. End Date
Detroit Diesel Corporation	400.EM2 400.EP4 410.EM2 410.EP4	2023	2024	August 26, 2020	April 26, 2024
Freightliner	eCascadia eM2	2023	2024	August 26, 2020	April 26, 2024
Identifying Feature	Detroit ePowertrain eCPC Software Reprogramming				

Work Instructions

Vehicle Model	eCascadia	eM2
ECPC Software Version	R23.32.10.00A w/ shift map A0294488802 ZGS 001	R23.31.10.00A w/ shift map A0294488802 ZGS 001
ETCM Software Version	NAMT231400	

Minimum Software Versions for Compatibility

1. Check the base label (Form WAR259) for a completion sticker for D24M2 (Form WAR261), indicating this work has been done. The base label is usually located on the passenger-side door, about 12 inches (30 cm) below the door latch. If a completion sticker is present, no work is needed. If a completion sticker is not present, proceed to the next step.
2. Park the vehicle on a level surface, place the vehicle in neutral, turn the keyswitch OFF, and set the parking brake. Chock the tires.

D24M2

Creation Date:

06/26/2024



DANGER:

To avoid serious personal injury or death, regard the following requirements before beginning repairs:

Service and repair of the electric vehicle should only be performed by technicians that have completed HV2 or HV3 Daimler Safety Training.

Decommissioning and commissioning of the High-voltage (HV) system should only be performed by technicians that have completed HV3 Daimler Safety training. To prevent personal injury, death, or damage to the electric system, do not attempt repairs if untrained.

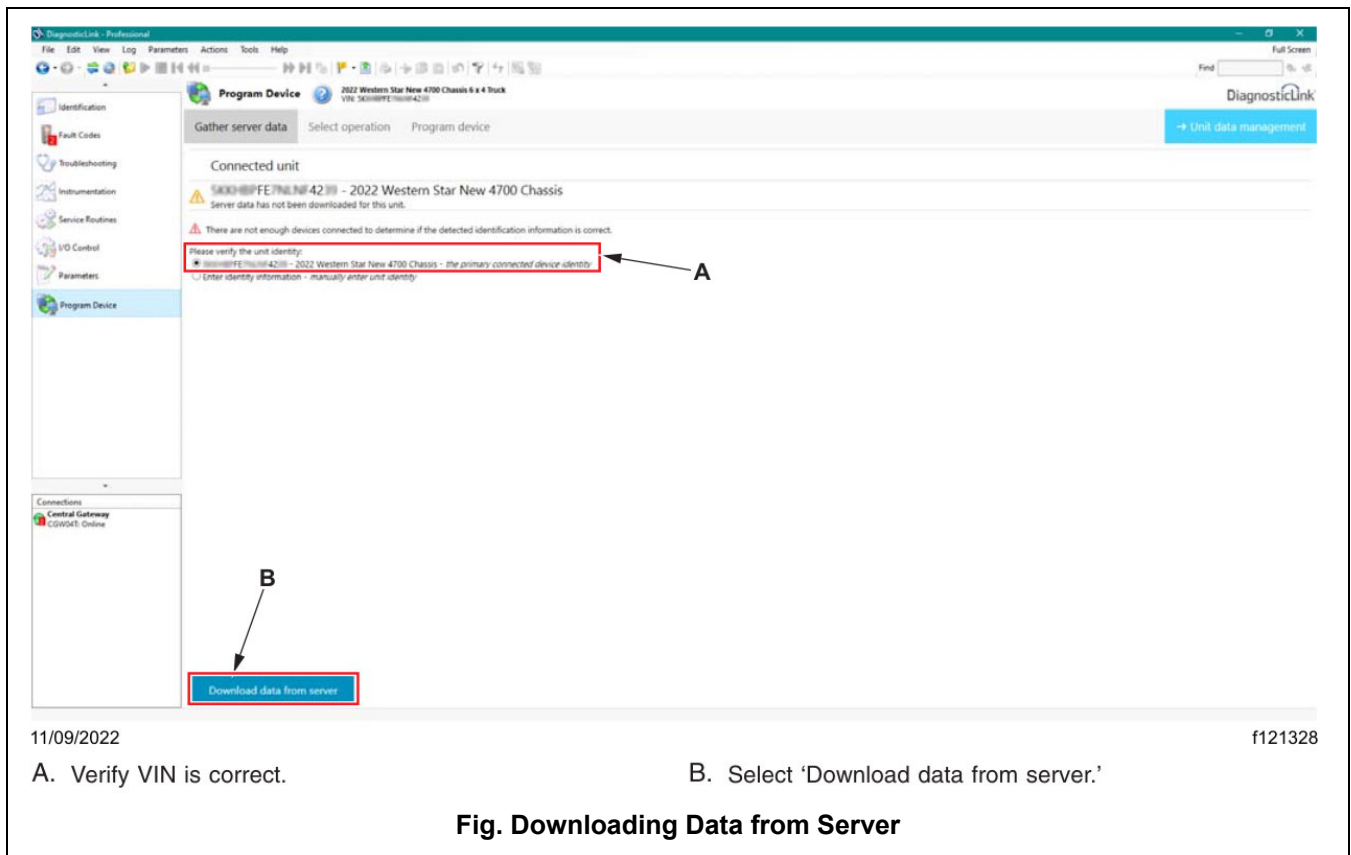
Decommission the vehicle and verify the HV system is shut down. Failure to properly decommission the vehicle can result in serious personal injury or death.

3. Connect a 12-volt battery charger to the jump studs in the front box.
4. Turn the keyswitch to the ON position.
5. Connect an RP1210B-compliant vehicle diagnostic adapter to the diagnostic connector on the vehicle. Connect the other end of the adaptor to the laptop.
6. Open DiagnosticLink®
IMPORTANT: Make sure that DiagnosticLink is updated to the latest version (8.18 SP1 at the time of publication or newer), before programming the vehicle.
7. Go to the 'Program Device' tab, and make sure the vehicle identification number (VIN) that appears is correct. Select 'Download data from server. See figure 'Downloading Data from Server'.

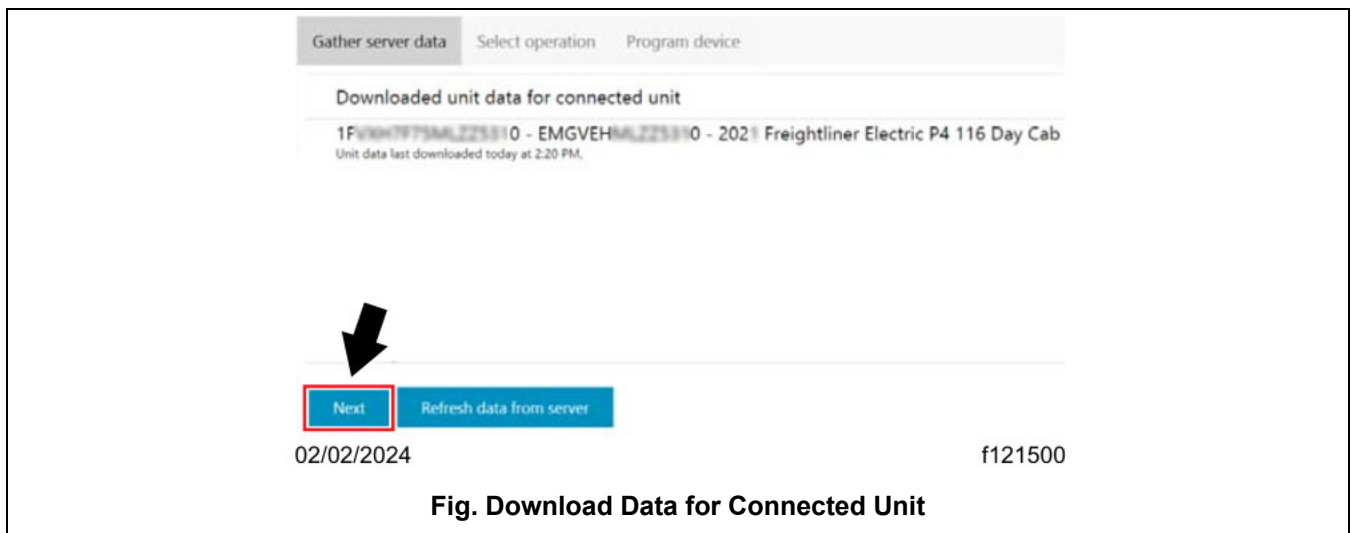
D24M2

Creation Date:

06/26/2024



- Once the data download is complete, select 'Next.' See Figure 'Download Data for Connected Unit'. Devices with available software are listed.

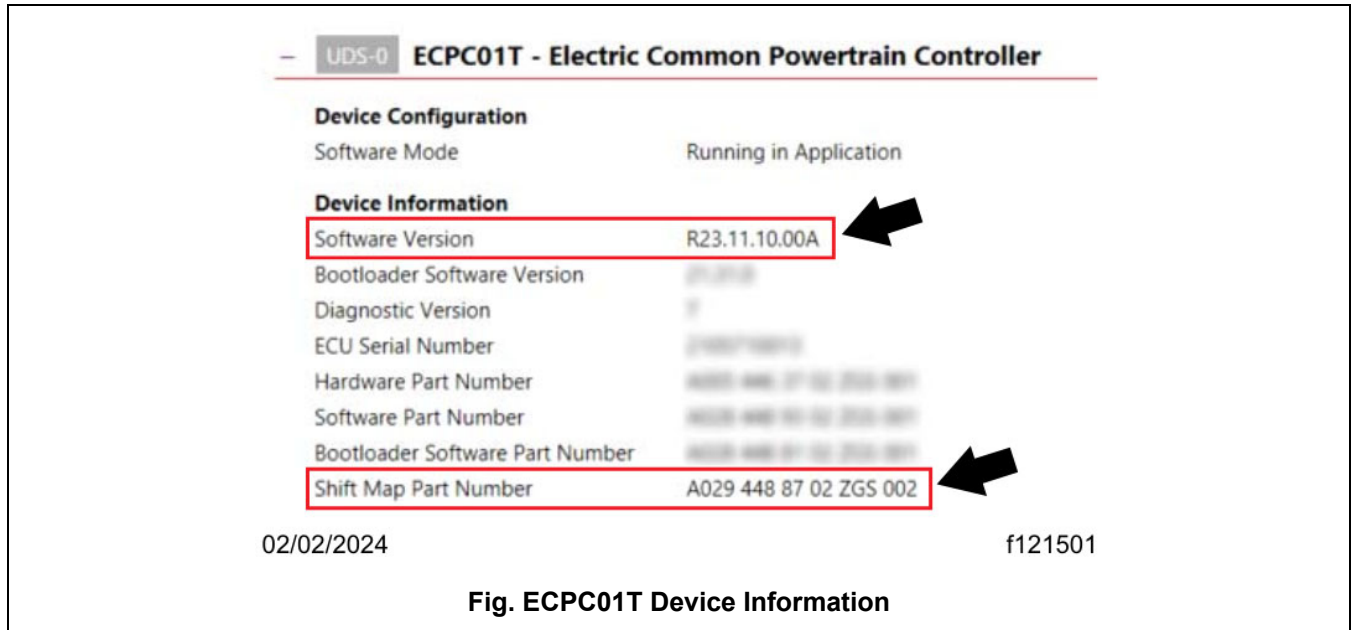


- Before proceeding to program the electric common powertrain controller (ECPC) and electronic control unit (ECU), check the software version and the shift map part number. Go to the 'Identification' tab, then select and expand the 'ECPC01T - Electric Common Powertrain Controller' panel.

D24M2

Creation Date: 06/26/2024

10. Verify the ECPC01T software version and the shift map part number. See Figure 'ECPC01T Device Information'.



11. If this is an eCascadia, ensure that the software version is updated to 'R23.32.10.00A', and the shift map part number is 'A029 448 88 02 ZGS 001' or greater. Example: Software R23.11.10.00A in Fig. 3 is less than R23.32.10.00A and requires updating.
12. If this is an eM2, ensure the software version is updated to 'R23.31.10.00A', and the shift map part number is 'A029 448 88 02 ZGS 001' or greater. Example: Software R23.11.10.00A in Fig. 3 is less than R23.31.10.00A and requires updating
13. Turn the keyswitch to the OFF position. Press the ESTOP button on the dash panel, then turn the keyswitch to the ON position.
14. Update the ECPC01T device software by selecting 'ECPC01T' as the device to program. See Figure 'Updating ECPC01T Device Software'.

D24M2

Creation Date:

06/26/2024

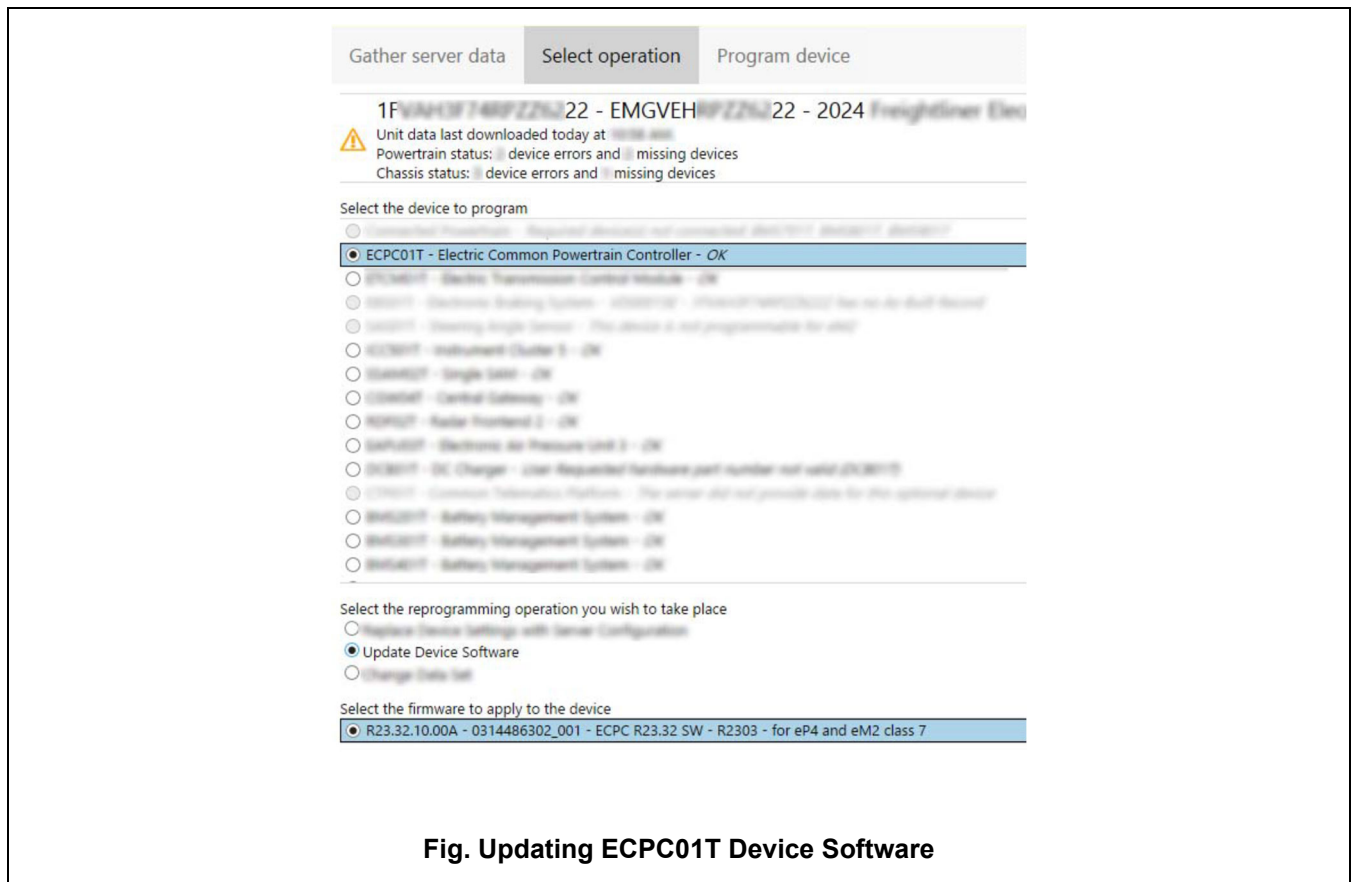


Fig. Updating ECPC01T Device Software

15. Select 'Update Device Software' as the reprogramming operation. See Figure 'Updating ECPC01T Device Software'
16. 'R23.32.10.00A' (if you are connected to an eCascadia), or 'R23.31.10.00A' (if you are connected to an eM2) should be selected as the firmware to apply to the device. Select 'Next'. See Figure 'Updating ECPC01T Device Software'.
17. Review the programming information, then select 'Start'.
18. Once programming is complete, the message; 'Programming was successfully completed.'; should display. Select 'Finish'.
19. Verify the ETCM is at the minimum software level as shown in the table labeled '**Minimum Software Versions for Compatibility**'.
20. If the ECPC ECU has been programmed, perform the electric refrigerant compressor (ERC) run-in procedure.
21. Has the ECPC software been updated to 'R23.32.10.00A' or 'R23.31.10.00A' in step 18?
YES → Continue with step 22.
NO → Go to step 26.
22. To enable the high voltage system, turn the keyswitch key to OFF position, release the ESTOP button on the dash panel, then turn the keyswitch to the ON position.

D24M2

Creation Date: 06/26/2024

23. Perform the ERC run-in procedure by opening the 'Refrigerant System Management' panel. This panel is located on the 'Service Routines' tab in DL version 8.19 SP1 and later. In DL versions 8.19 and earlier, it is under the 'I/O Controls' tab.
24. Set the blower fan speed to a minimum of level 8.
25. Select 'Start' to re-learn the ERC run-in. See Figure 'ERC Run-In Panel'.



26. Once programming is complete, click the 'Finish' button and perform the following to allow the modules to synchronize with each other:
 - Disconnect the USB Link at 9-pin vehicle diagnostic port.
 - Turn the vehicle keyswitch OFF and wait one minute.
 - Turn the vehicle keyswitch ON and wait one minute.
 - Turn the vehicle keyswitch OFF and wait one minute.
 - Turn the vehicle keyswitch ON and wait one minute.
 - Reconnect the USB Link, reconnect DiagnosticLink® to the ECPC and the ETCM, and confirm the proper software.
27. Update the server by clicking the 'Connect to Server' button in the bottom left corner of the DiagnosticLink screen.
28. Clean a spot on the base label (Form WAR259) and attach a campaign completion sticker for D24M2 (Form WAR261), indicating this work has been completed.