



Subject: Software Download Process of SW-18187-P (5516009 or 5516010) – Endurant and PACCAR Transmissions

Document Number: TAIB-0877

Date: October 1, 2018

Updated: October 1, 2020

Issue Description:

Updating Transmission Control Module (TCM) software to 55161009 or 5516010 requires additional file downloads; a total of 5 compared to a typical download of 2 files (Monitor and TCM). These additional file downloads are required to support product security enhancements. 5 key switch cycles and “OK” button prompts are required as part of the download process.

Note: Reference TAIB-0882: DAVIE4 Required for Software Updates and Configuration Changes When Connected to a PACCAR 12-Speed Transmission (PACCAR AMT)

Containment/Corrective Action:

The following is required to support a successful software download:

- Ensure the vehicle batteries are properly charged.
 - If equipped, ensure the Low Voltage Disconnect (LVD) does not activate due to low battery voltage during the software download process.
- Ensure to close the vehicle cab doors and, if equipped, disable any telematics system to limit activity on the vehicle data link.
- Ensure the computer performing the software download remains properly powered or charged and the communication adapter remains connected.
- Ensure timely execution of the 5 key switch cycles and “OK” button prompts. Each file download may vary in time and duration.

NOTICE: Complete and timely execution of all on-screen prompts are required during the software download process, explicitly the key switch cycles and “OK” button prompts.

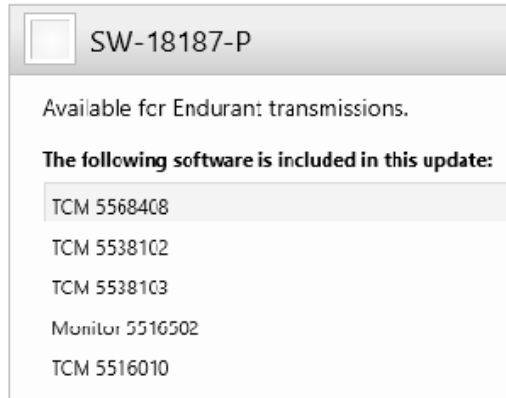
Note: A failed software download typically occurs due to not following the key switch cycles and “OK” button prompts, disconnection of the communication adapter, an issue with the computer performing the download or low vehicle battery voltage. If the download failed, contact Eaton at 1-800-826-HELP (4357) for assistance, in most cases the TCM can be recovered from a failed software download.

After a successful download of 5516009 or 5516010, previous software versions are not available.

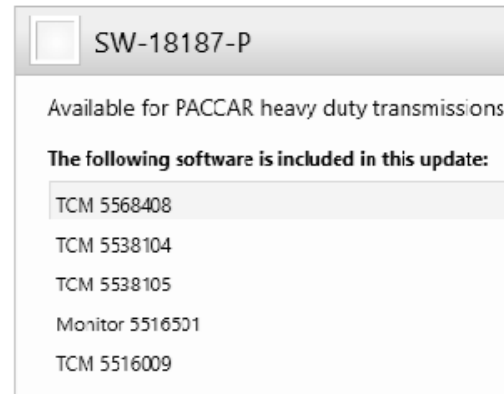
Affected Models/Population:

Endurant Transmission (5516010)
PACCAR Transmissions (5516009)

Endurant



PACCAR



Note: This software package includes five different continuous downloads, each with a key switch cycle and “OK” button prompt. Promptly follow on-screen prompts to avoid a failed download.

- **If the “Connection Failed” prompt appears: Follow recovery instructions on page 3**
- **If the “Download Completed Successfully” prompt appears:** No additional action is required, process complete.
- **If the “Download Failed” prompt appears:** Take a screenshot of the error message (example below). The steps required to recover the ECU vary based on the error message indicated. Go to **Recovery Instructions with Screenshot**.
- **If the “Download Failed” prompt appears** and a screenshot of the error message is not available, go to **Recovery Instructions without Screenshot**.

Recovery Instructions with Screenshot

Disconnect ServiceRanger, key off and remove battery power to TCM and wait 30 seconds. After 30 seconds reconnect battery power to TCM, key on and connect ServiceRanger.

General instructions:

1. Key on.
2. Connect ServiceRanger.
3. When prompted, select “Recover ECU”.
4. From the Product Family dropdown, select “Endurant” or “PACCAR”.
5. From the Model dropdown, select the transmission model.
6. From the ECU dropdown, select “TCM – Endurant” or “TCM - PACCAR”.
7. From the Hardware dropdown, Download Recovery phases 1 through 3 consecutively until a “Download Completed Successfully” prompt appears”. Ensure Recovery Package SW-18187-P is selected.
8. Complete download by updating to newest Software Version; for PACCAR reference 2020-FSUD-4168, Service Bulletin TAIB-0882.
9. Verify Engine calibrations in TCM settings are correct as fault codes 206 & 215 may set active during this procedure.

Select the appropriate Step based on the failed software download:

Failed software download:	Go to:
5568408	Step A
5538102 5538103 5538104 5538105	Step B
Monitor software 5516501 Monitor software 5516502	Step C
TCM software 5516009 TCM software 5516010	Step D

Step A: Recovering from failed download of 5568408 software:

1. Key on.
2. Connect ServiceRanger.
3. When prompted, select “Recover ECU”.
4. From the Product Family dropdown, select “Endurant” or “PACCAR”.
5. From the Model dropdown, select the transmission model.
6. From the ECU dropdown, select “TCM – Endurant” or “TCM - PACCAR”.
7. From the Hardware dropdown, select “Gen 4 ECU – Gen 4 ECU”.
8. From the Available Updates, select “SW-18187-P”.

Note: Selecting this option downloads the following versions:

Endurant Software Version	PACCAR Software Version
5568408	5568408
5538102	5538104
5538103	5538105
5516010	5516009

9. From the Connect to Vehicle prompt, select “Ok.”
10. Go To Programming.
11. From the Available Updates, select “SW-18187-P”. Process complete.

Note: Selecting this option downloads the Monitor software.

Endurant

Selection Menu

Product Family:
Endurant

Model:
EEO-xxF112C

ECU Hardware

ECU:
TCM - Endurant

Hardware:
Phase 3: Gen 4 ECU - Gen 4 ECU
Phase 1: Gen 4 ECU Endurant - Gen 4 ECU Endurant
Phase 2: Gen 4 ECU Dev - Gen 4 ECU Dev

PACCAR

Selection Menu

Product Family:
PACCAR

Model:
PO-xxF112C

ECU Hardware

ECU:
TCM - PACCAR

Hardware:
Phase 3: Gen 4 ECU - Gen 4 ECU
Phase 1: Gen 4 ECU PACCAR - Gen 4 ECU PACCAR
Phase 2: Gen 4 ECU Dev - Gen 4 ECU Dev

Step B: Recovering from failed download of 5538102, 5538103, 5538104 or 5538105 software:

1. Key on.
2. Connect ServiceRanger.
3. When prompted, select “Recover ECU.”
4. From the Product Family dropdown, select “Endurant” or “PACCAR”
5. From the Model dropdown, select the transmission model.
6. From the ECU dropdown, select “TCM – Endurant” or “TCM - PACCAR”.
7. From the Hardware dropdown, select “Gen 4 ECU Dev – Gen 4 ECU Dev”.
8. From the Available Updates, select “SW-18187-P”.

Note: Selecting this option downloads the following software versions:

Endurant Software Version	PACCAR Software Version
5538102	5538104
5538103	5538105
5516010	5516009

9. From the Connect to Vehicle prompt, select “Ok.”
10. Go To Programming.
11. From the Available Updates, select “SW-18187-P”. Process complete.

Note: Selecting this option downloads the Monitor software.

Endurant

Selection Menu

Product Family:
Endurant

Model:
EEO-xxF112C

ECU Hardware

ECU:
TCM - Endurant

Hardware:

- Phase 3: Gen 4 ECU - Gen 4 ECU
- Phase 1: Gen 4 ECU Endurant - Gen 4 ECU Endurant
- Phase 2: Gen 4 ECU Dev - Gen 4 ECU Dev**

PACCAR

Selection Menu

Product Family:
PACCAR

Model:
PO-xxF112C

ECU Hardware

ECU:
TCM - PACCAR

Hardware:

- Phase 3: Gen 4 ECU - Gen 4 ECU
- Phase 1: Gen 4 ECU PACCAR - Gen 4 ECU PACCAR
- Phase 2: Gen 4 ECU Dev - Gen 4 ECU Dev**

Step C: Recovering from failed download of 5516501 or 5516502 Monitor software:

1. Key on.
2. Connect ServiceRanger.
3. When prompted, select “Recover ECU.”
4. From the Product Family dropdown, select “Endurant” or “PACCAR”
5. From the Model dropdown, select the transmission model.
6. From the ECU dropdown, select “Monitor – Endurant” or “Monitor - PACCAR”.
7. From the Hardware dropdown, select “Gen 4 ECU Endurant” or “Gen 4 ECU PACCAR”.
8. From the Available Updates, select “SW-18187-P”.

Note: Selecting this option downloads the Endurant Monitor software version 5516502 or the PACCAR Monitor software version 5516501.

9. After this download completes, download the Endurant TCM software version 5516010 or the PACCAR TCM software version 5516009, go to **Step D**.

Endurant

Selection Menu	
Product Family:	Endurant
Model:	EEO-xxF112C
ECU Hardware	
ECU:	Monitor - Endurant
Hardware:	
Phase 3: Gen 4 ECU - Gen 4 ECU	
Phase 1: Gen 4 ECU Endurant - Gen 4 ECU Endurant	
Phase 2: Gen 4 ECU Dev - Gen 4 ECU Dev	

PACCAR

Selection Menu	
Product Family:	PACCAR
Model:	PO-xxF112C
ECU Hardware	
ECU:	Monitor - PACCAR
Hardware:	
Phase 3: Gen 4 ECU - Gen 4 ECU	
Phase 1: Gen 4 ECU PACCAR - Gen 4 ECU PACCAR	
Phase 2: Gen 4 ECU Dev - Gen 4 ECU Dev	

Step D: Recovering from failed download of 5516009 or 5516010 TCM software:

1. Key on.
2. Connect ServiceRanger.
3. When prompted, select “Recover ECU.”
4. From the Product Family dropdown, select “Endurant” or “PACCAR”
5. From the Model dropdown, select the transmission model.
6. From the ECU dropdown, select “TCM – Endurant” or “TCM - PACCAR”.
7. From the Hardware dropdown, select “Gen 4 ECU Endurant” or “Gen 4 ECU PACCAR”.
8. From the Available Updates, select “SW-18187-P”. Process complete.

Note: Selecting this option downloads the Endurant TCM software version 5516010 or the PACCAR TCM software version 5516009.

Endurant

Selection Menu

Product Family:
Endurant

Model:
EEO-xxF112C

ECU Hardware

ECU:
TCM - Endurant

Hardware:

- Phase 3: Gen 4 ECU - Gen 4 ECU
- Phase 1: Gen 4 ECU Endurant - Gen 4 ECU Endurant**
- Phase 2: Gen 4 ECU Dev - Gen 4 ECU Dev

PACCAR

Selection Menu

Product Family:
PACCAR

Model:
PO-xxF112C

ECU Hardware

ECU:
TCM - PACCAR

Hardware:

- Phase 3: Gen 4 ECU - Gen 4 ECU
- Phase 1: Gen 4 ECU PACCAR - Gen 4 ECU PACCAR**
- Phase 2: Gen 4 ECU Dev - Gen 4 ECU Dev

Recovery Instructions without Screenshot.

Disconnect ServiceRanger, key off and remove battery power to TCM and wait 30 seconds. After 30 seconds reconnect battery power to TCM, key on and connect ServiceRanger.

Step A: Recovering from failed download of 5568408 software:

1. Key on.
2. Connect ServiceRanger.
3. When prompted, select “Recover ECU”.
4. From the Product Family dropdown, select “Endurant” or “PACCAR”.
5. From the Model dropdown, select the transmission model.
6. From the ECU dropdown, select “TCM – Endurant” or “TCM - PACCAR”.
7. From the Hardware dropdown, select “Gen 4 ECU – Gen 4 ECU”.
8. From the Available Updates, select “SW-18187-P”.

Note: Selecting this option downloads the following versions:

Endurant Software Version	PACCAR Software Version
5568408	5568408
5538102	5538104
5538103	5538105
5516010	5516009

9. From the Connect to Vehicle prompt, select “Ok.”
10. Go To Programming.
11. From the Available Updates, select “SW-18187-P”.
 - a. If the Download Completed Successfully, process complete.
 - b. If the Download Failed, 5568408 has already been installed successfully, Go to **Step B**.

Endurant

Selection Menu

Product Family:
Endurant

Model:
EEO-xxF112C

ECU Hardware

ECU:
TCM - Endurant

Hardware:
Phase 3: Gen 4 ECU - Gen 4 ECU
Phase 1: Gen 4 ECU Endurant - Gen 4 ECU Endurant
Phase 2: Gen 4 ECU Dev - Gen 4 ECU Dev

PACCAR

Selection Menu

Product Family:
PACCAR

Model:
PO-xxF112C

ECU Hardware

ECU:
TCM - PACCAR

Hardware:
Phase 3: Gen 4 ECU - Gen 4 ECU
Phase 1: Gen 4 ECU PACCAR - Gen 4 ECU PACCAR
Phase 2: Gen 4 ECU Dev - Gen 4 ECU Dev

Step B: Recovering from failed download of 5538102, 5538103, 5538104 or 5538105 software:

1. Key on.
2. Connect ServiceRanger.
3. When prompted, select “Recover ECU.”
4. From the Product Family dropdown, select “Endurant” or “PACCAR”
5. From the Model dropdown, select the transmission model.
6. From the ECU dropdown, select “TCM – Endurant” or “TCM - PACCAR”.
7. From the Hardware dropdown, select “Gen 4 ECU Dev – Gen 4 ECU Dev”.
8. From the Available Updates, select “SW-18187-P”.

Note: Selecting this option downloads the following software versions:

Endurant Software Version	PACCAR Software Version
5538102	5538104
5538103	5538105
5516010	5516009

9. From the Connect to Vehicle prompt, select “Ok.”
10. Go To Programming.
11. From the Available Updates, select “SW-18187-P”.
 - a. If the Download Completed Successfully, process complete.
 - b. If the Download Failed, 5538102, 5538103, 5538104 or 5538105 has already been installed successfully, Go to **Step C**.

Endurant

Selection Menu

Product Family:
Endurant

Model:
EEO-xxF112C

ECU Hardware

ECU:
TCM - Endurant

Hardware:

- Phase 3: Gen 4 ECU - Gen 4 ECU
- Phase 1: Gen 4 ECU Endurant - Gen 4 ECU Endurant
- Phase 2: Gen 4 ECU Dev - Gen 4 ECU Dev**

PACCAR

Selection Menu

Product Family:
PACCAR

Model:
PO-xxF112C

ECU Hardware

ECU:
TCM - PACCAR

Hardware:

- Phase 3: Gen 4 ECU - Gen 4 ECU
- Phase 1: Gen 4 ECU PACCAR - Gen 4 ECU PACCAR
- Phase 2: Gen 4 ECU Dev - Gen 4 ECU Dev**

Step C: Recovering from failed download of 5516009 or 5516010 TCM software:

1. Key on.
2. Connect ServiceRanger.
3. When prompted, select “Recover ECU.”
4. From the Product Family dropdown, select “Endurant” or “PACCAR”
5. From the Model dropdown, select the transmission model.
6. From the ECU dropdown, select “TCM – Endurant” or “TCM - PACCAR”.
7. From the Hardware dropdown, select “Gen 4 ECU Endurant” or “Gen 4 ECU PACCAR”.
8. From the Available Updates, select “SW-18187-P”.
 - a. If the Download Completed Successfully, process complete.
 - b. If the Download Failed, replace TCM.

Note: Selecting this option downloads the Endurant TCM software version 5516010 or the PACCAR TCM software version 5516009.

Endurant

Selection Menu

Product Family:
Endurant

Model:
EEO-xxF112C

ECU Hardware

ECU:
TCM - Endurant

Hardware:

- Phase 3: Gen 4 ECU - Gen 4 ECU
- Phase 1: Gen 4 ECU Endurant - Gen 4 ECU Endurant**
- Phase 2: Gen 4 ECU Dev - Gen 4 ECU Dev

PACCAR

Selection Menu

Product Family:
PACCAR

Model:
PO-xxF112C

ECU Hardware

ECU:
TCM - PACCAR

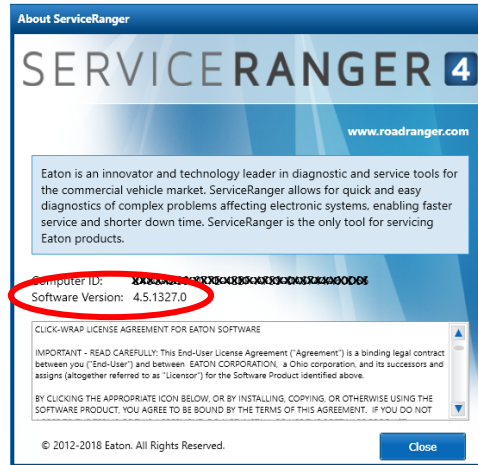
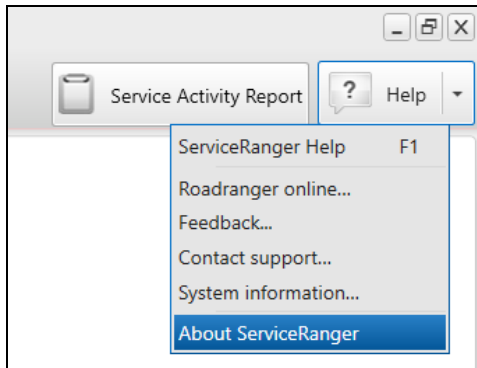
Hardware:

- Phase 3: Gen 4 ECU - Gen 4 ECU
- Phase 1: Gen 4 ECU PACCAR - Gen 4 ECU PACCAR**
- Phase 2: Gen 4 ECU Dev - Gen 4 ECU Dev

Field Strategy:

The 5516009 and 5516010 software are in ServiceRanger Application 4.5.1327 database update version 1807-01-C-2635 at an RFM License and above.

To verify software version open ServiceRanger > select Help > select About ServiceRanger:



The latest ServiceRanger software version is available at the link below:
<http://www.roadranger.com/rr/CustomerSupport/Support/ServiceRanger/index.htm>

Affected Models	Current Release Part Number	New Release Part Number	Date
Endurant Transmissions	5516004 and 5516006 (Navistar)	5516010	7/27/2018
PACCAR Transmissions	5516004 and 5516006 (Navistar)	5516009	7/27/2018

Warranty Information:

Warranty Parts:

- No parts required if download successful.
- TCM kit number based on transmission model (pending inspection).

The material contained in this bulletin is product improvement information. Eaton Corporation is not committed to, or liable for, canvassing existing products. FSUD: 2018-FSUD-2640