



**Subject:** ServiceRanger 4 Connection Settings – Add Profile

**Document Number:** MDIB-0051

**Date:** August 15, 2022

**Updated:** July 8, 2024

## Description:

To ensure Eaton® ServiceRanger 4 connectivity with a Transmission Electronic Control Unit (TECU) and Transmission Control Module (TCM) a proper connection settings profile is required.

The screenshot shows the 'Add Profile' dialog in the Eaton ServiceRanger 4 software. The 'Vehicle' radio button is selected under 'Select connection mode:'. The 'Name' field contains 'Enter Name'. The 'Communications Adapter' is a dropdown menu. Under 'Common Connections', there are dropdowns for 'J1939 Connection' and 'J1587 Connection'. A note states: 'Select at least one connection configuration. Note: Most vehicles only require one selection. Need help? [Click here for more details.](#)' At the bottom right of the dialog are 'Cancel' and 'Save' buttons. The status bar at the bottom of the application window shows 'No Eaton Product Detected' and 'Disconnected'.

## Transmission Models:

- Endurant HD, XD
- UltraShift *PLUS* and Fuller Advantage Automated
- UltraShift Gen3 and Gen2 Transmissions

**Note:** AutoShift Gen1 Transmissions require ServiceRanger 2.80, refer to [Service Bulletin MDIB-0036](#).

### Field Strategy:

#### A. Identify ServiceRanger 4 Version

1. Open ServiceRanger 4.
2. Go To “Settings”.
3. Select “License”.
4. Record **ServiceRanger Version: 4.##.####**
  - a. If version is 4.12.1363 or greater, go to [Step B](#).
  - b. If version is less than 4.12.1363, refer to [RRMT0041](#) and update to latest version. Go to [Step B](#).

#### B. Use an Approved Communication Adapter

1. Refer to [Vehicle Link Adapters](#) (select “Resources” tab).
2. Refer to communication adapter manufacturer and download device drivers software to computer. Go to [Step C](#).

**CAUTION:** A hardwired USB connection between computer, communication adapter and vehicle diagnostic connector is required for programming a TECU and TCM. Do not use a wireless connection (Bluetooth or WiFi). Failure to use a hardwired USB connection when programming may result in a damaged TECU or TCM and void component warranty.

**Note:** A crossover cable may be required based on the OEM – Kenworth, Peterbilt and Volvo, and communication adapter: NEXIQ CAN 3 - CAN 1 (PN 406004), PACCAR Y - Cable (PN 42-02848) or equivalent.

#### C. Identify Connection Setting

1. Go to [Recommended Connection Settings](#) section.
2. Based on OEM, identify and record connection setting. Go to [Step D](#).

#### D. Add a Profile in Connection Settings

1. Open ServiceRanger – Physical connection to a vehicle or communication adapter is not required to add a profile.
2. Go To “Settings”.
3. Select “Connection Settings”.
4. Select “+” Add Profile.
5. Select connection mode: “Vehicle”.
6. Enter profile name.
7. From the “Communications Adapter” drop down, select communication adapter.
8. From J1587 Connection or J1939 Connection drop down, select connection setting recorded in **Step C**.
9. Select Save, go to [Step E](#).

### E. Connect ServiceRanger 4 to Vehicle:

1. Connect Communication Adapter to computer and vehicle:
  - USB cable and connector to computer.
  - Diagnostic cable and connector to vehicle.
2. Key on with engine off.
3. Select “Connect”.
  - If “Successfully Connected”, **process complete**.
  - If “no Eaton product detected”, go to [Step C](#).
  - If “Connection Failed”, go to [Step F](#).

### F. Reset Communication Adapter and computer:

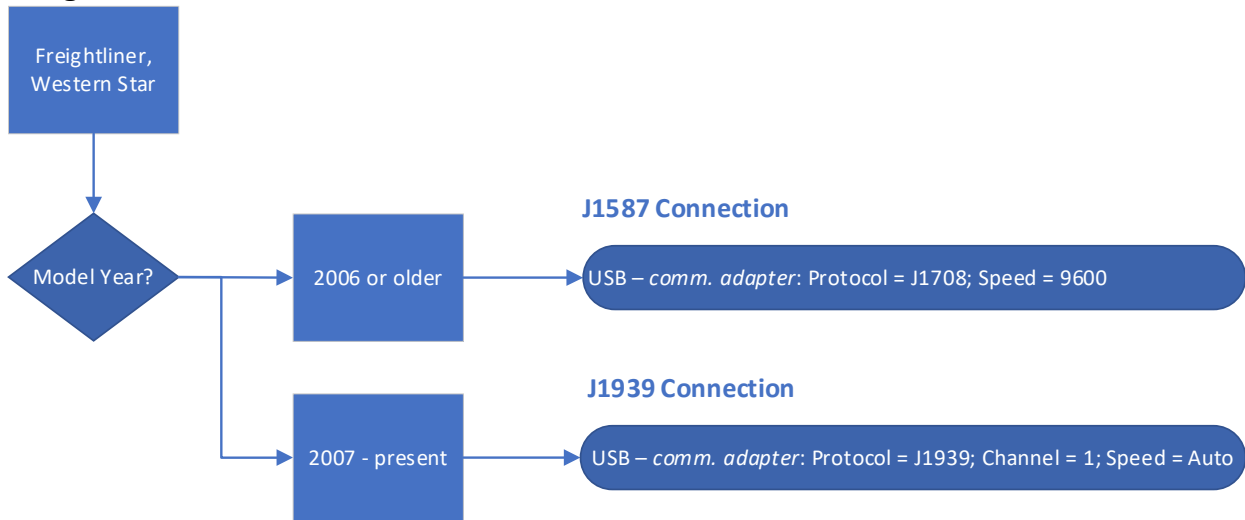
1. Key off.
2. Disconnect Communication Adapter from vehicle and computer.
3. Reboot computer.
4. Connect Communication Adapter to vehicle and computer.
5. Key on with engine off.
6. Open ServiceRanger 4.
7. Select “Connect”.
  - If “Successfully Connected”, **process complete**.
  - If “no Eaton product detected” or “Connection Failed”, contact Eaton for further diagnostic instructions:
    - U.S. and Canada Help Line: +1-800-826-4357
    - Mexico Help Line: +52-800-800-6801

## Recommended Connection Settings:

### OEM:

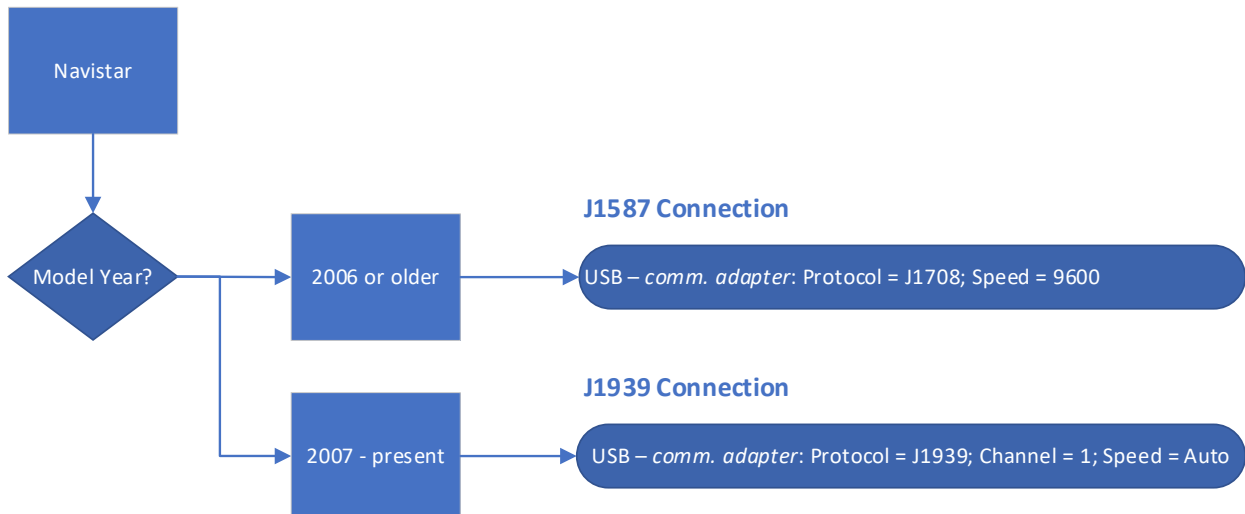
- [Freightliner, Western Star](#)
- [Navistar](#)
- [Kenworth, Peterbilt](#)
- [Volvo](#)
- [Bluebird](#)

### Freightliner, Western Star:



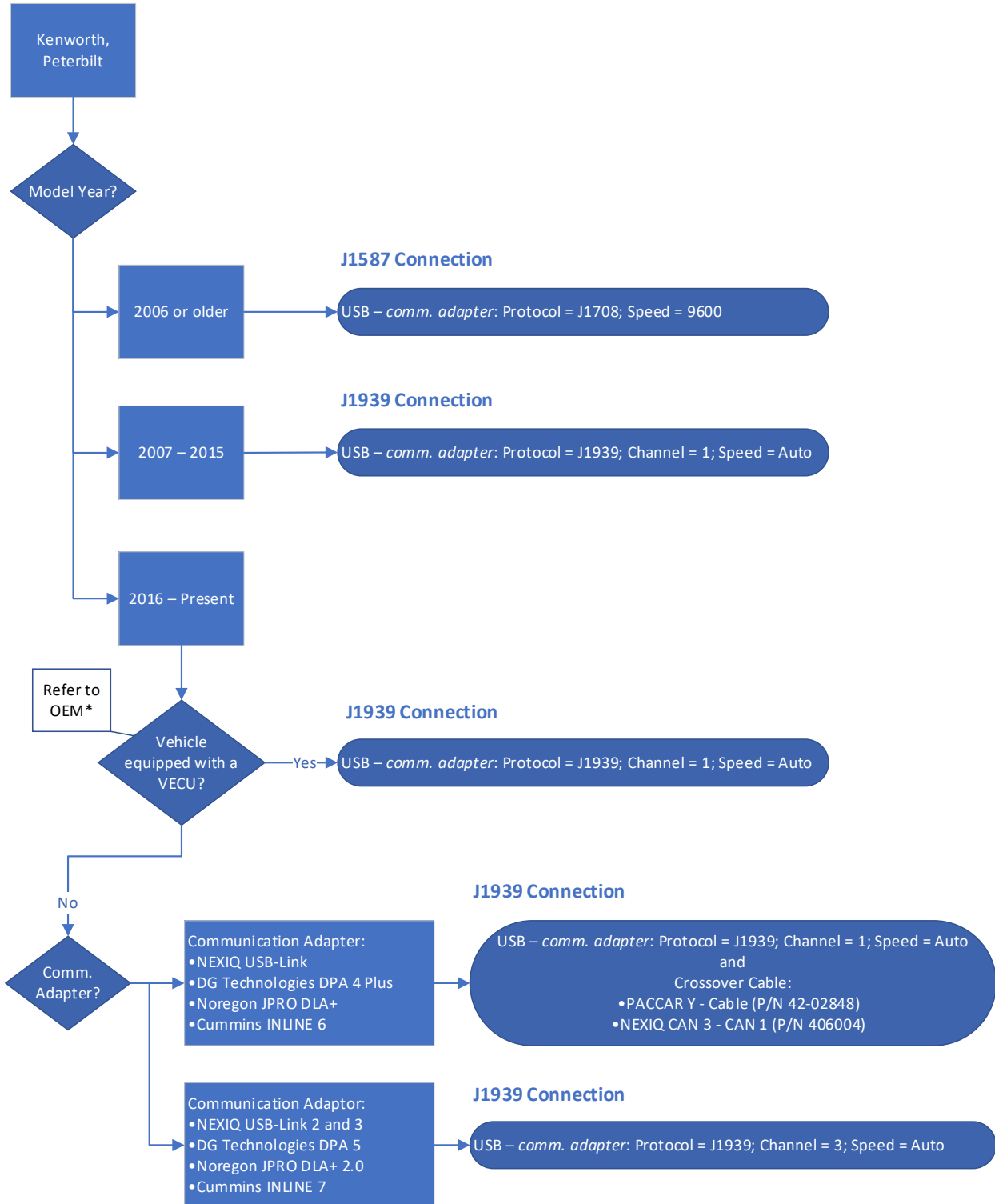
- Go to [Step D](#).

### Navistar:



- Go to [Step D](#).

## Kenworth, Peterbilt:



- Go to [Step D.](#)

### Kenworth, Peterbilt (continued):

\*The following may assist in determining if vehicle is equipped with a Vehicle Electronic Control Unit (VECU):

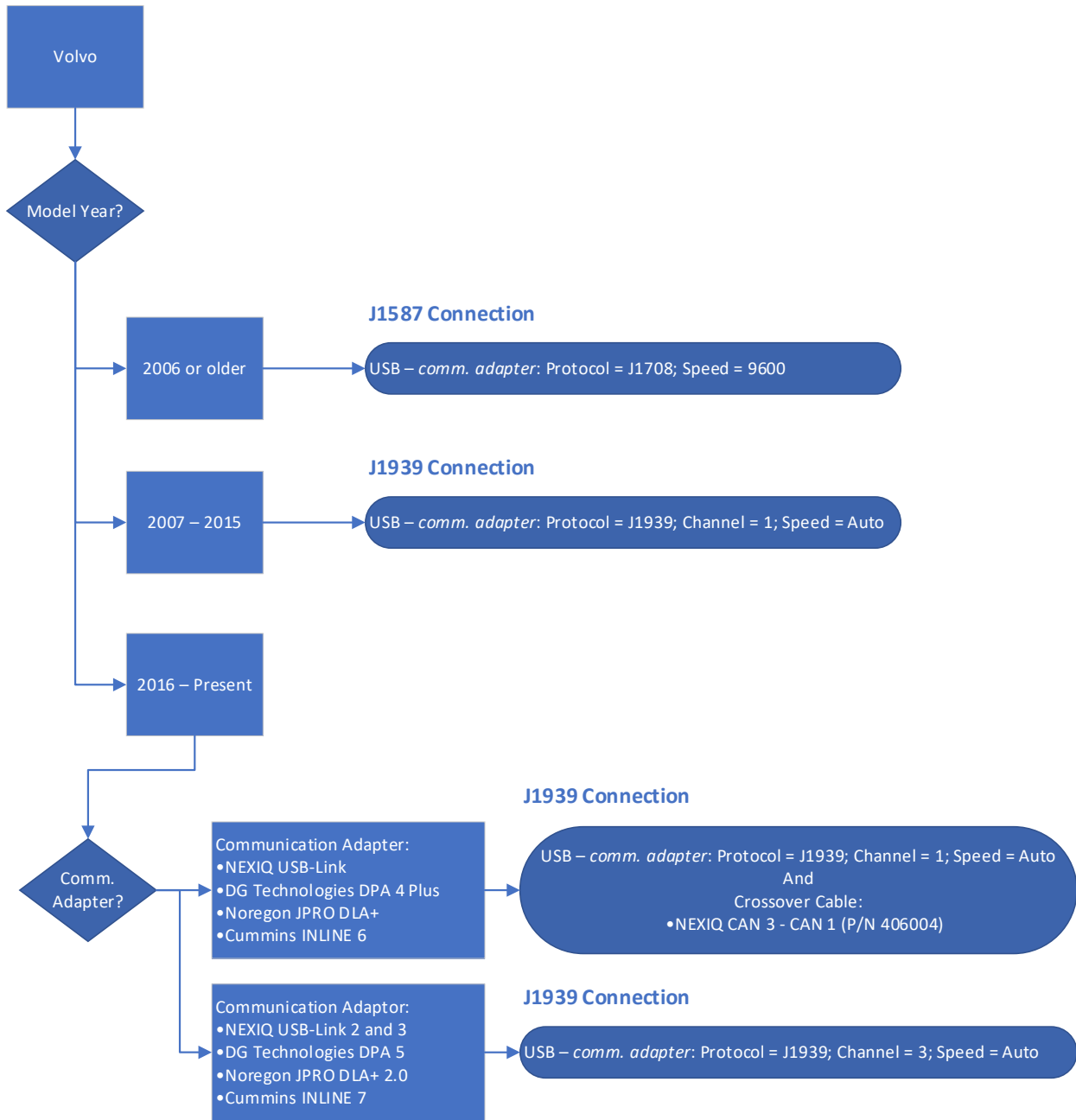
- Vehicles equipped with a full digital display (dash) are equipped with a VECU, example below:



- Vehicles equipped with analog gauges and a digital display – Use digital display push-scroll dial, go to Truck Info, Chassis tab, scroll through list of components to determine if vehicle is equipped with a VECU or not:



## Volvo:



- Go to [Step D.](#)

## Bluebird:



- Go to [Step D](#).

## Warranty Information:

Information only.

The material contained in this bulletin is product improvement information. Eaton Corporation is not committed to, or liable for, canvassing existing products. FSUD: 2022-FSUD-4425

## Change Log

| Date      | Description  |
|-----------|--|
| 7/8/2024  | Updated Subject, Field Strategy and Recommended Connections Settings sections, added links within document.                |
| 7/1/2024  | Updated Description and Field Strategy sections, added Recommended Connections Setting section with revised process flows. |
| 11/6/2023 | Added edit profile example image and connection setting process flow diagrams  |
| 8/15/2022 | Document created   |