

YEAR	MODEL
2020	All SSV except Commander Series
2020	All Outlander/MAX 4x4 850, 1000 and 1000R Outlander MAX 650 XT-P T category
2021	All SSV except Maverick Turbo RR
2021	All Outlander/MAX 4x4 850, 1000 and 1000R Outlander MAX 650 XT-P T category

## PARTS REQUIRED

Order ECM as per regular channel.

DESCRIPTION	PART NUMBER
Blank ECM	420666064

## UPDATE PROCEDURE

### Replacing an ECM

When programming a new ECM, recovery of the vehicle informations comes from the cluster. If the cluster is to be replaced with the ECM, replace and program the cluster first, then proceed with the ECM replacement.

Refer to shop manual for component replacement.

### Verifying BUDS2 Version

Ensure that the BRP diagnostic software (BUDS2) is updated to the required version.

1. Start BUDS2 and logon.
2. In BUDS2, go to **About** page.



3. Validate the following:
  - **Application Version:** 19.0.0 or newer
  - **ODX Version:** 19.22.0 or newer
  - **OTX Version:** 19.33.0 or newer
  - **EDB Dump Version:** 19.27.0 or newer.
  - **Workspace Version:** 19.32.1 or newer

If the information is different, connect the computer to Knowledge Center to update BUDS2.

## Powering the Vehicle When Using BUDS2

**NOTICE** Make sure the unit's battery is fully charged before undertaking this operation. Never use a battery charger to temporarily substitute the battery as it may cause the ECM to function erratically, or not at all.

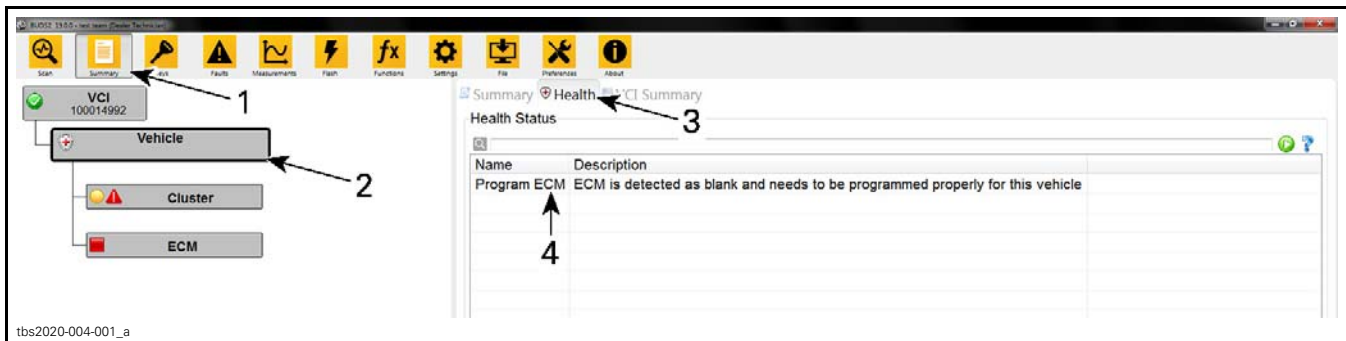
**NOTICE** Continuous power to the computer is mandatory while performing this operation.

## Programming a Blank ECM

### NOTE

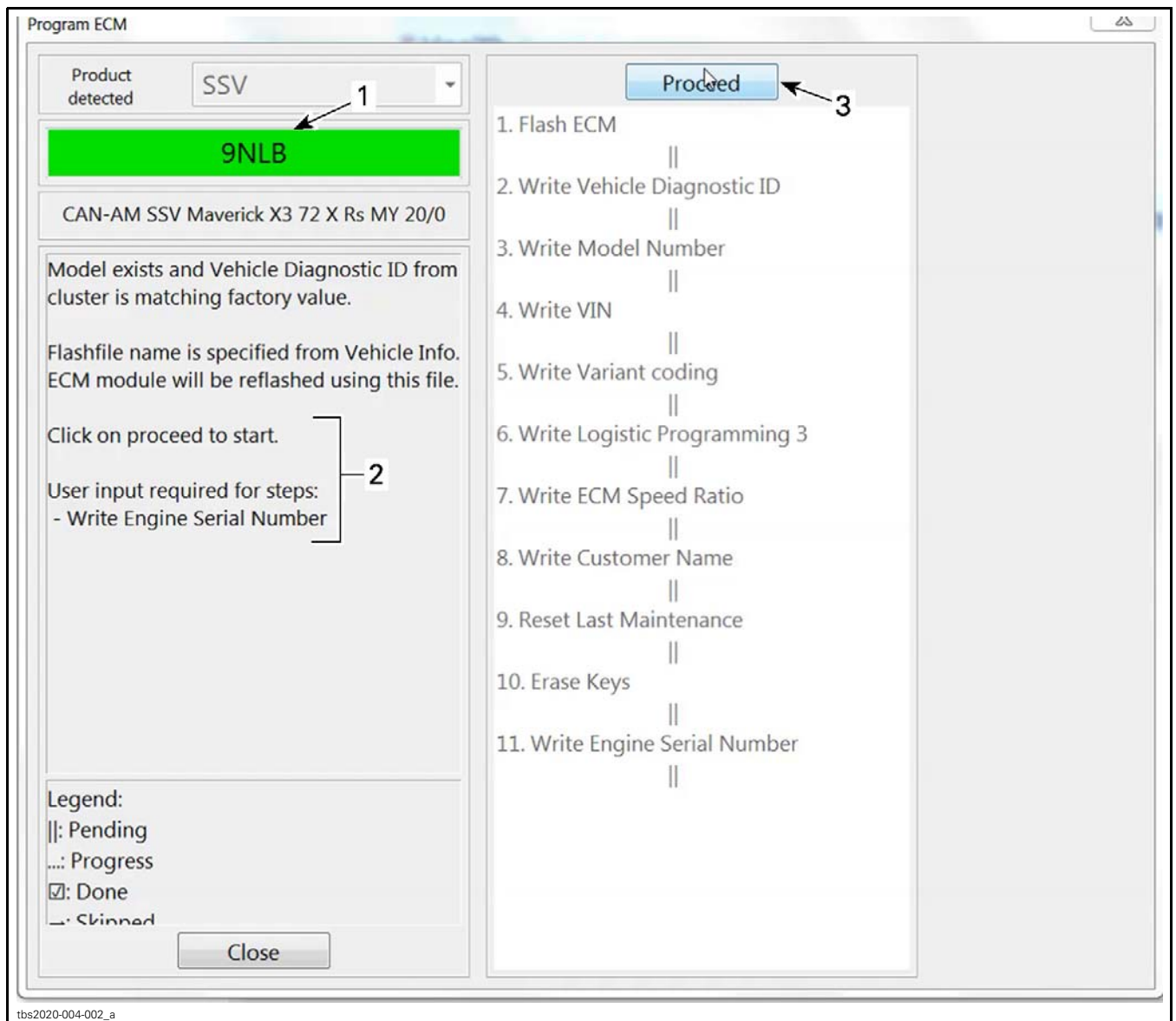
-If the ECM is not the root cause of the issue, it must be reset as new within 14 days from the last programming. Afterwards, it will not be possible.  
-The ECM can only be reset as new if it is holding the file from the initial process. If any update is flashed into the ECM it will no longer be eligible to be reset as new.

1. Connect the vehicle to the BRP diagnostic software (BUDS2).
2. In BUDS2, go to:
  - Summary page
  - Vehicle button
  - Health tab.
3. Double click on Program ECM.

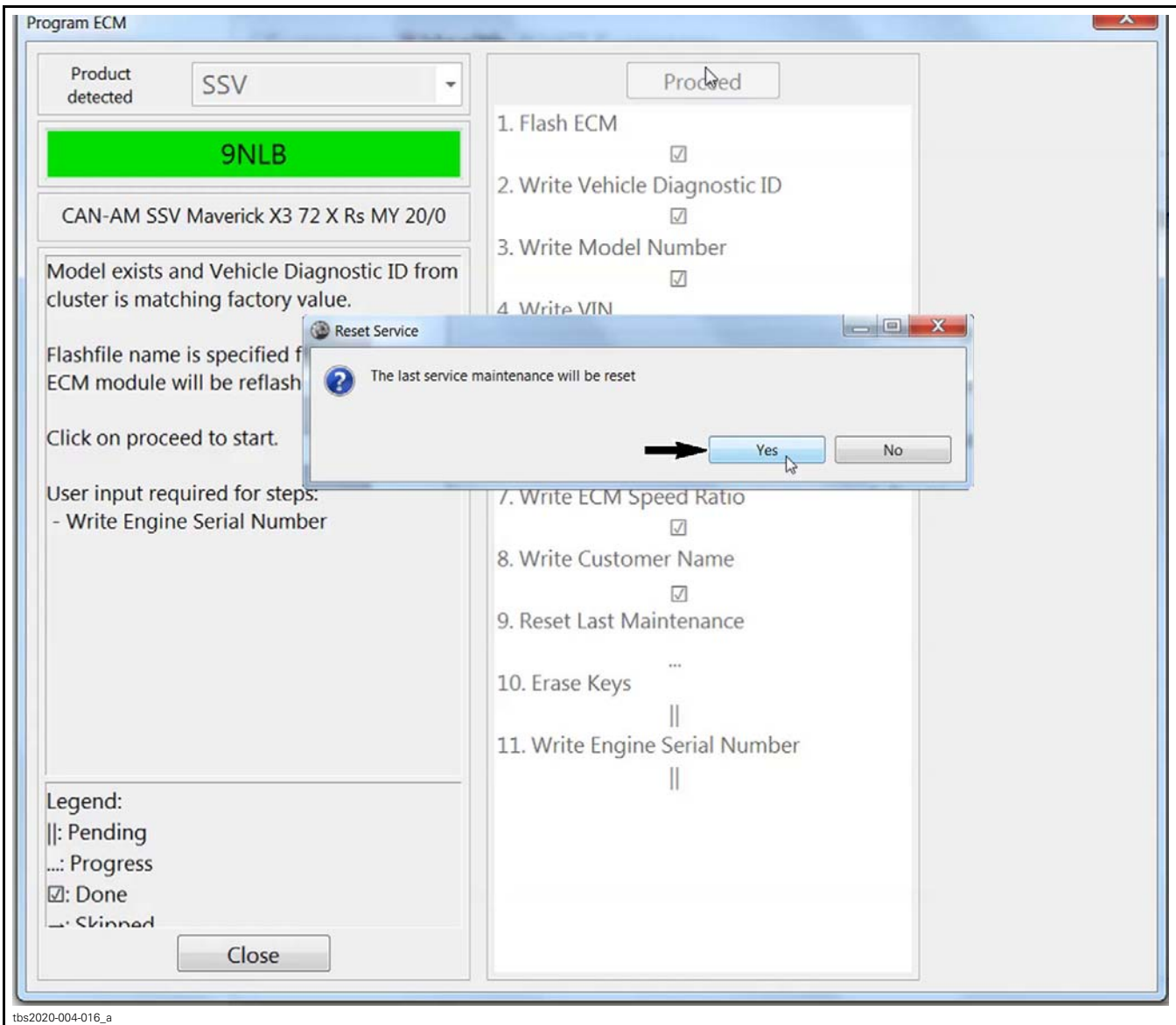


1. Summary page
2. ECM button
3. Health tab
4. Program ECM

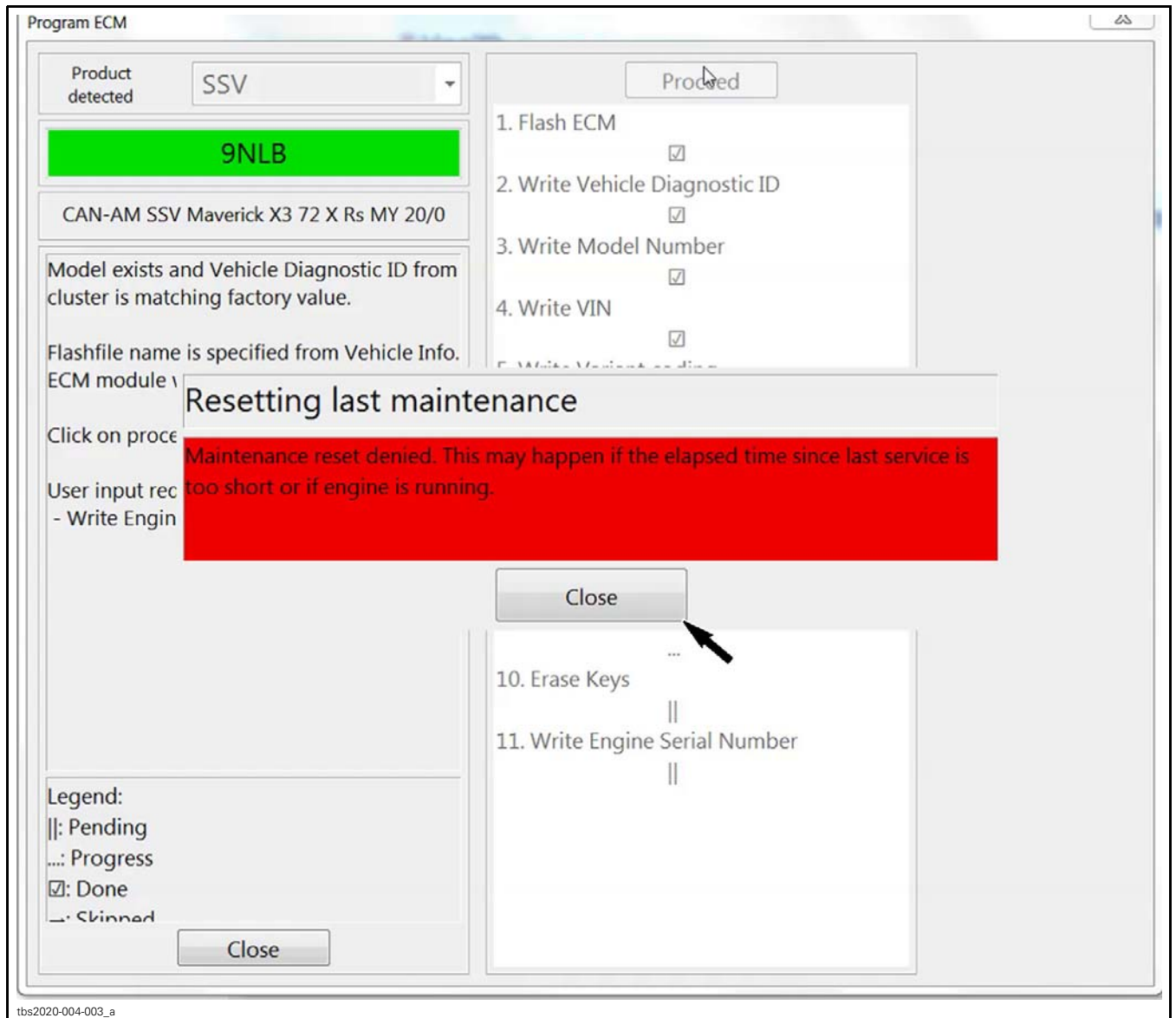
4. Make sure the vehicle model number is good.
5. Engine Identification Number will have to be entered manually at the end of the procedure.
6. Click on Proceed.



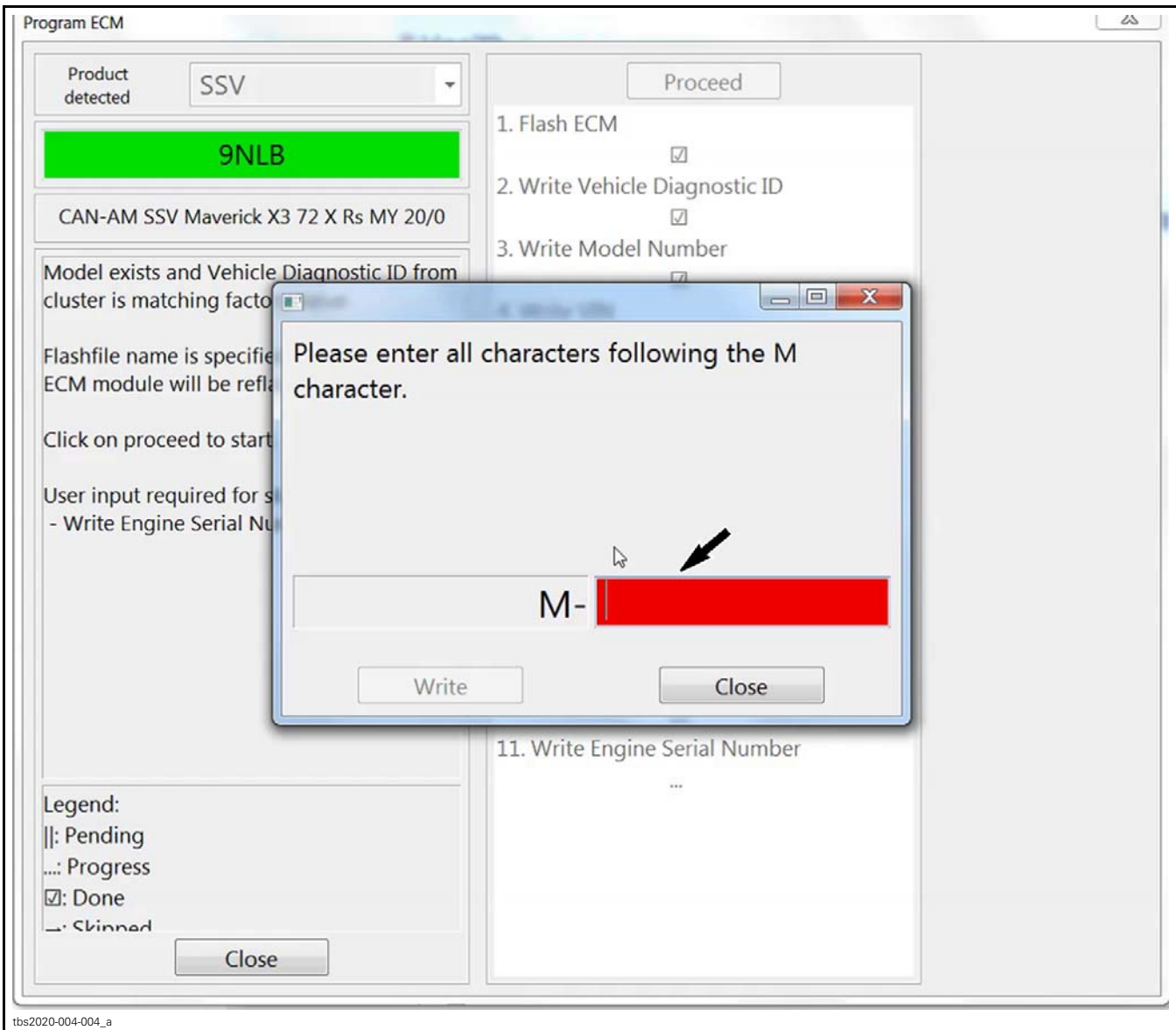
7. When the **Reset Service** window appears, click on **Yes**.



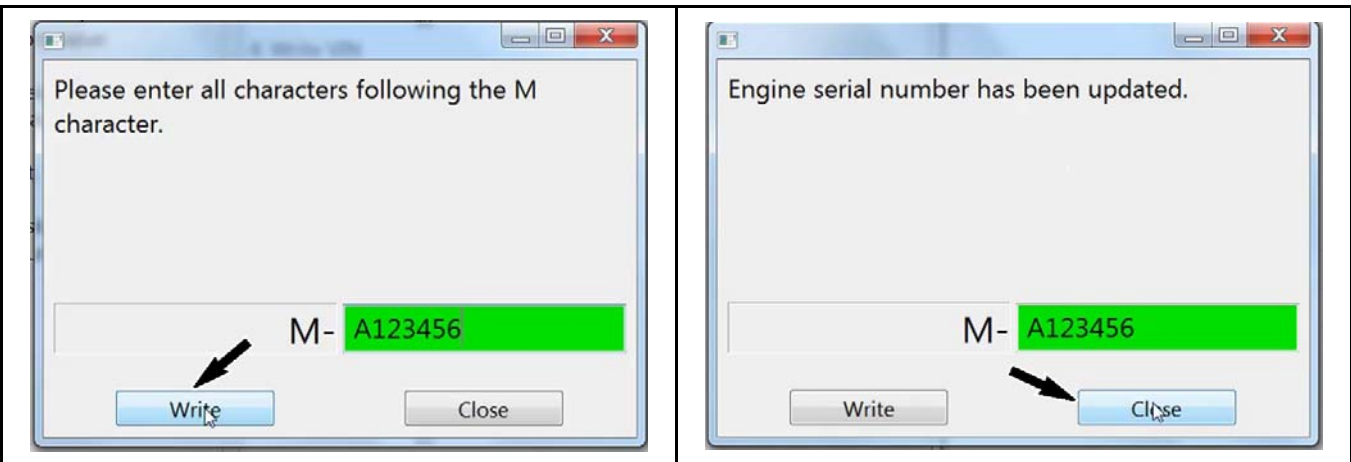
8. Close the red window if it appears.



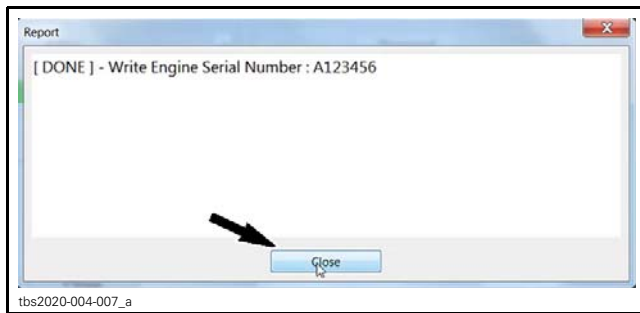
9. Enter the engine identification number.



10. Click **Write**, then **Close**.



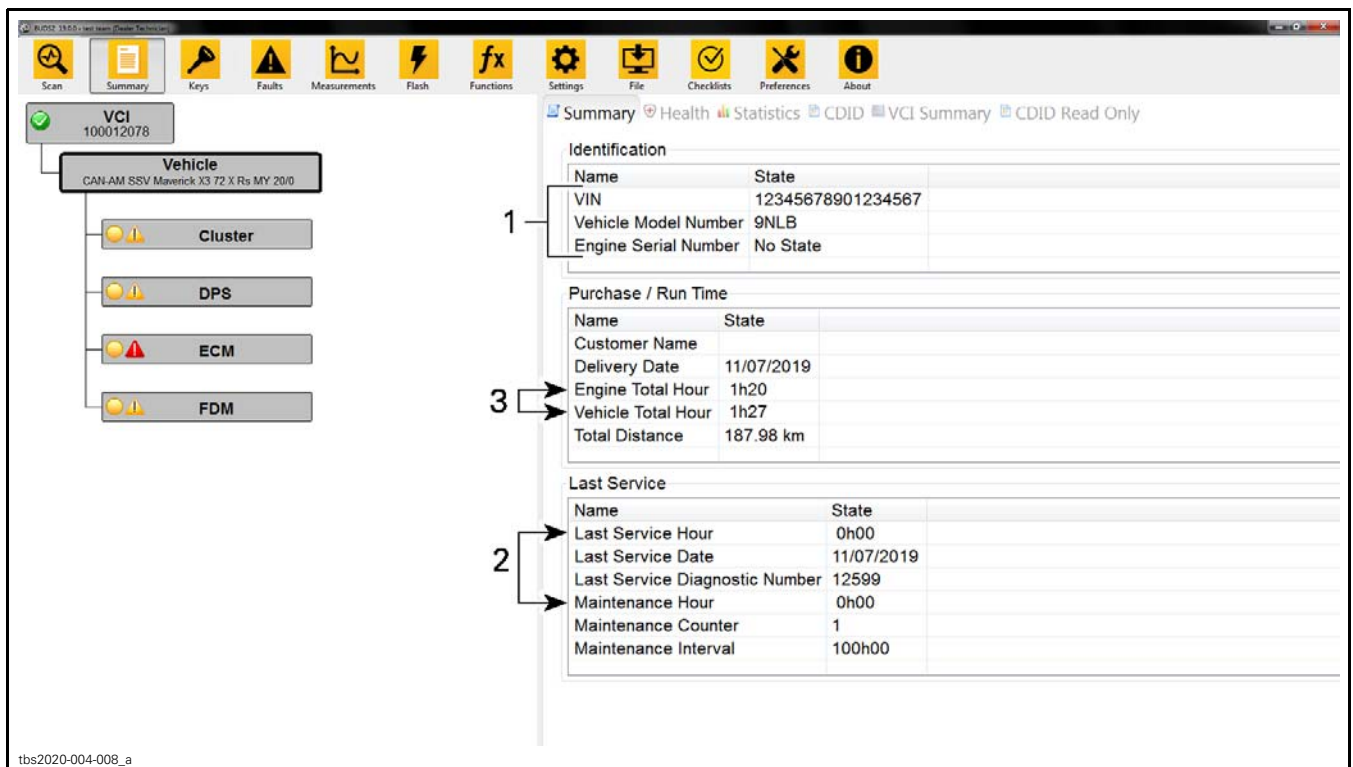
11. A message confirm that the engine identification number is entered. Close the window.



12. Scan the vehicle again.
13. Go to:
  - Summary page
  - Vehicle button
  - Summary tab.
14. Validate the following:
  - Vehicle Identification Number (VIN)
  - Vehicle model number
  - Engine Serial Number.

Last Service Hour and Maintenance Hour are reset to 0h00.

The Engine Total Hour and Vehicle Total Hour can **NOT** be reset to 0h00 and will always remain at the value before the time of resetting as new.



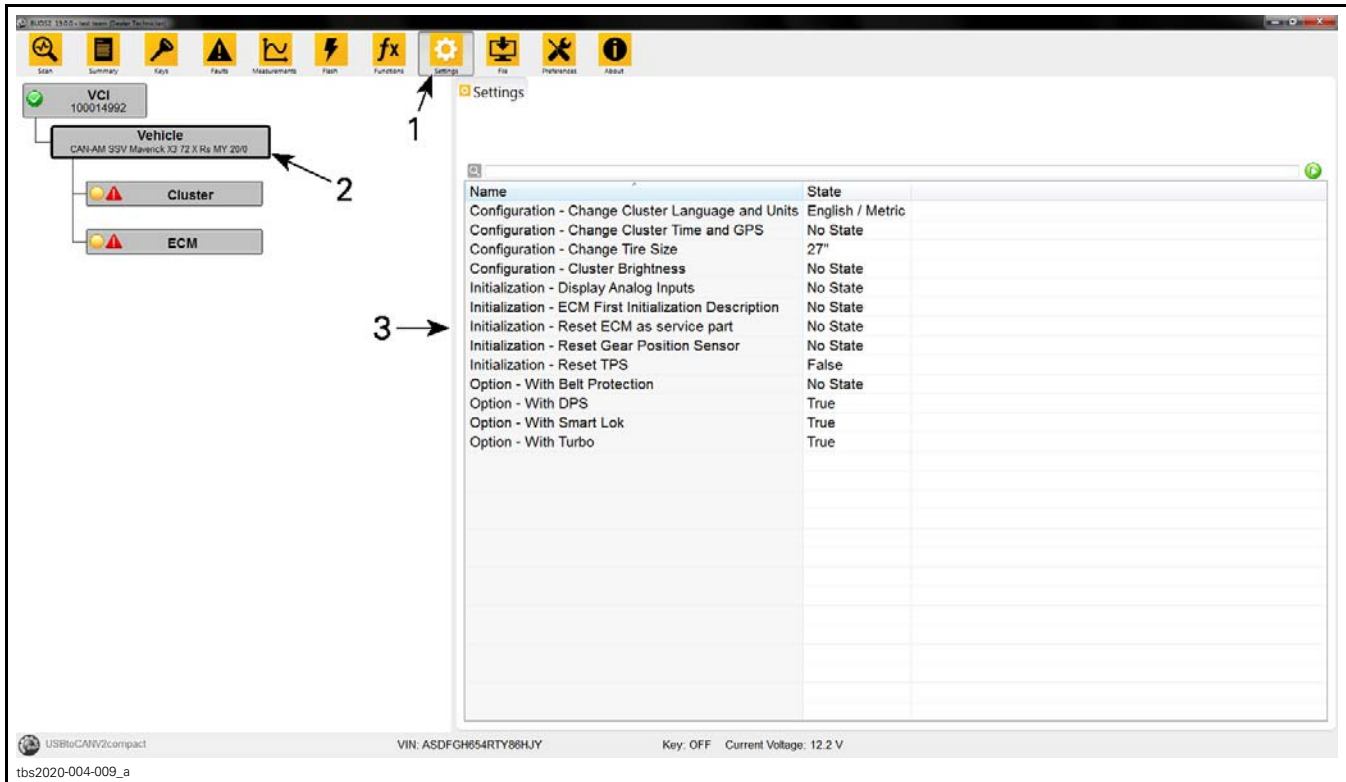
1. Vehicle information
2. Reset hour
3. Non reset hour

15. Reset fault codes. If fault codes are generated, carry out the required service actions.

16. Start the engine and make sure it operates properly throughout its full engine RPM.

## Reset the ECM as a Service Part

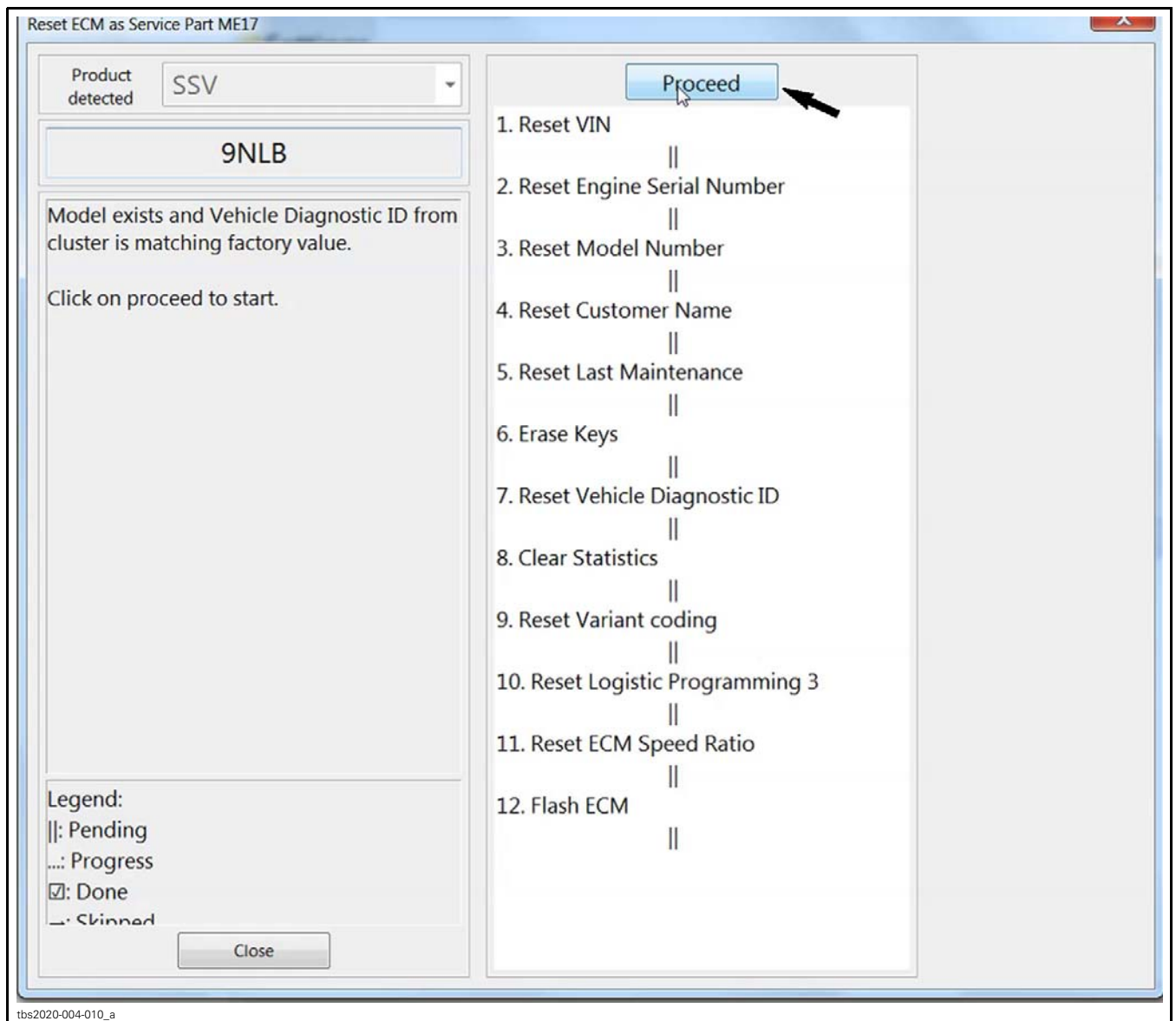
1. Connect the vehicle to the BRP diagnostic software (BUDS2).
2. In BUDS2, go to:
  - Settings page
  - ECM button
3. Double click on Initialization - Reset the ECM as a Service Part.



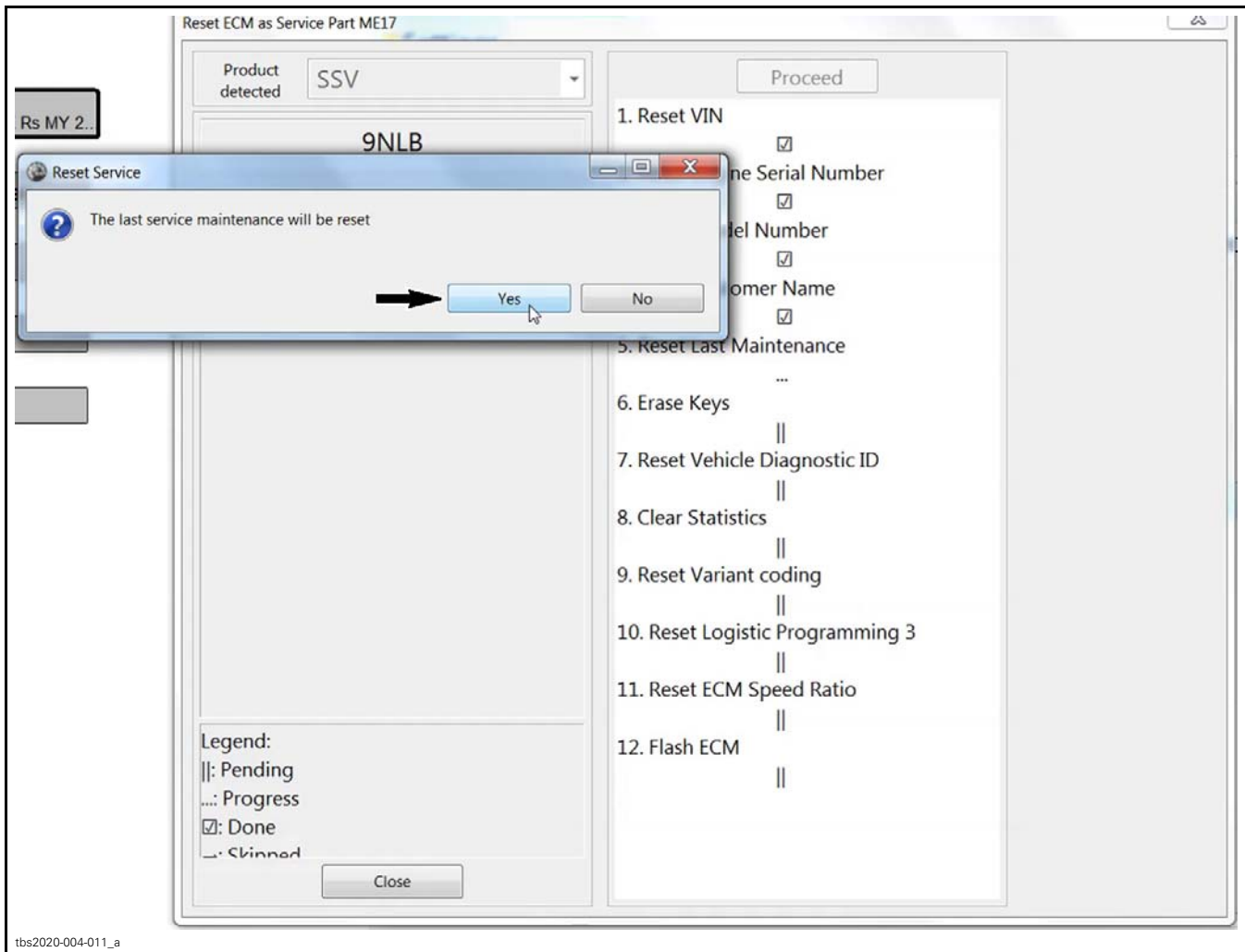
1. Settings page
2. Vehicle button with vehicle description
3. Initialization - Reset ECM as service part.

4. Click on Proceed.

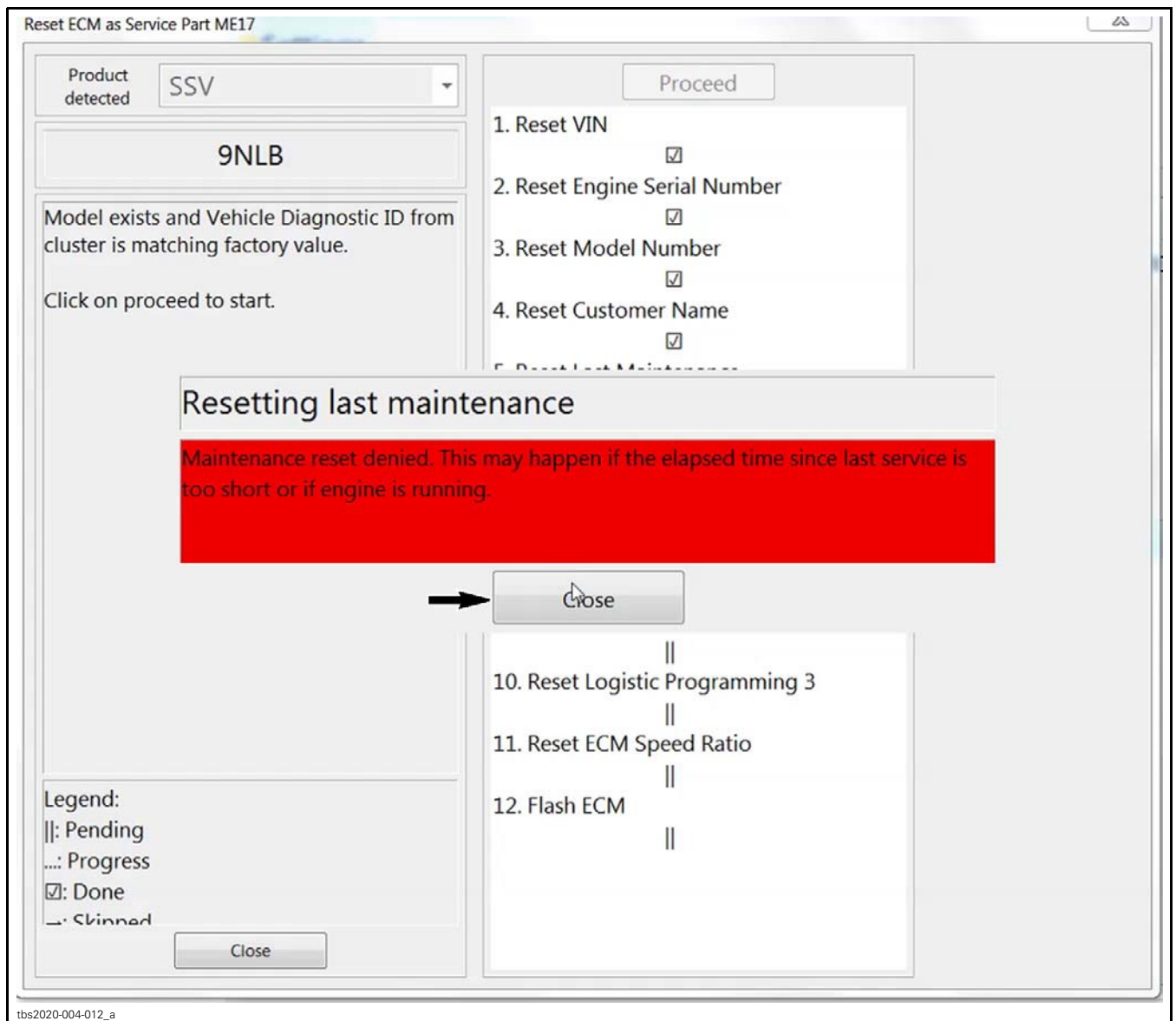




5. When the Reset Service window appears, click **Yes**.

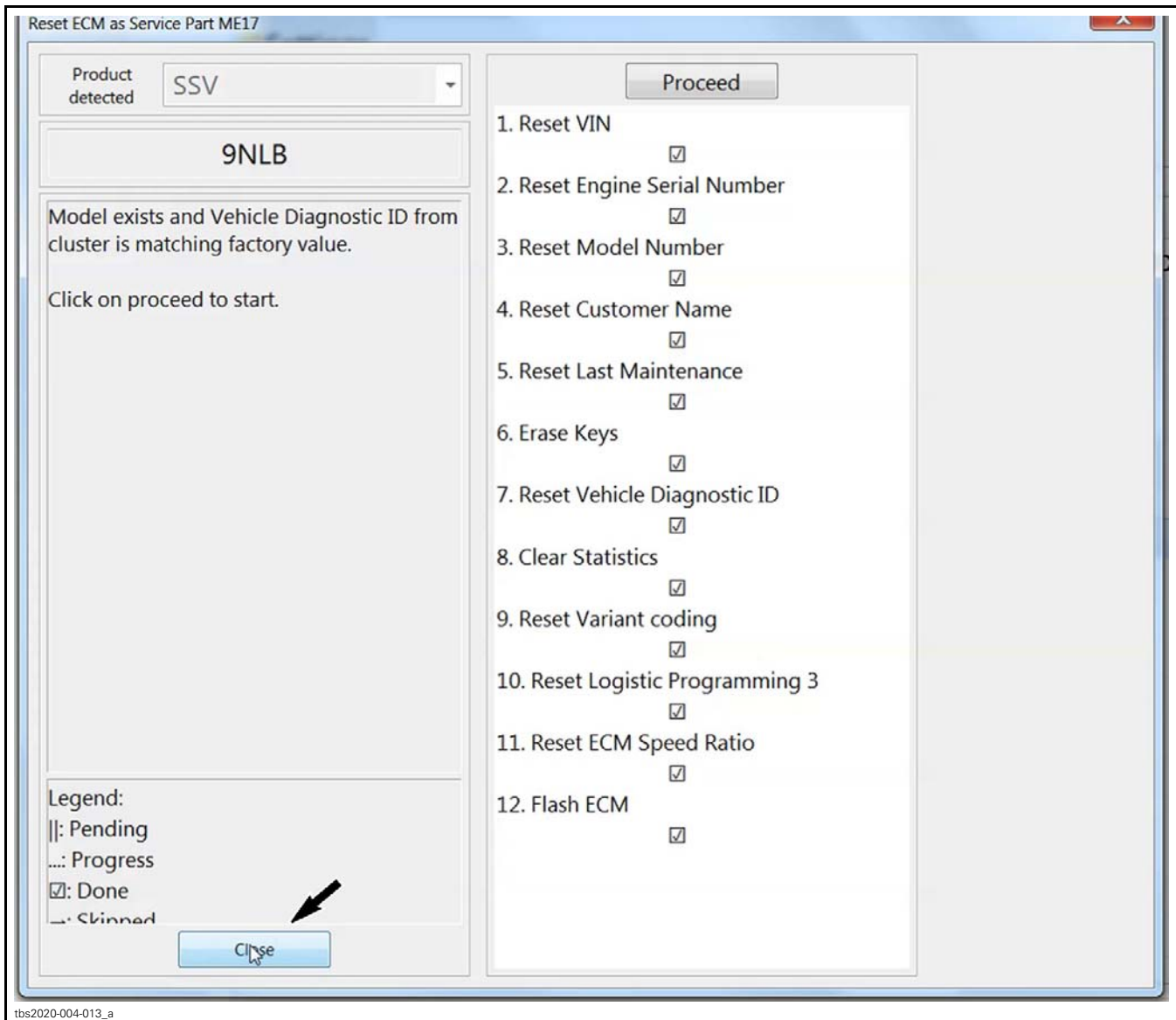


6. Close the red window if it appears.



All boxes are checked when the ECM reset is completed.

7. Close the window.



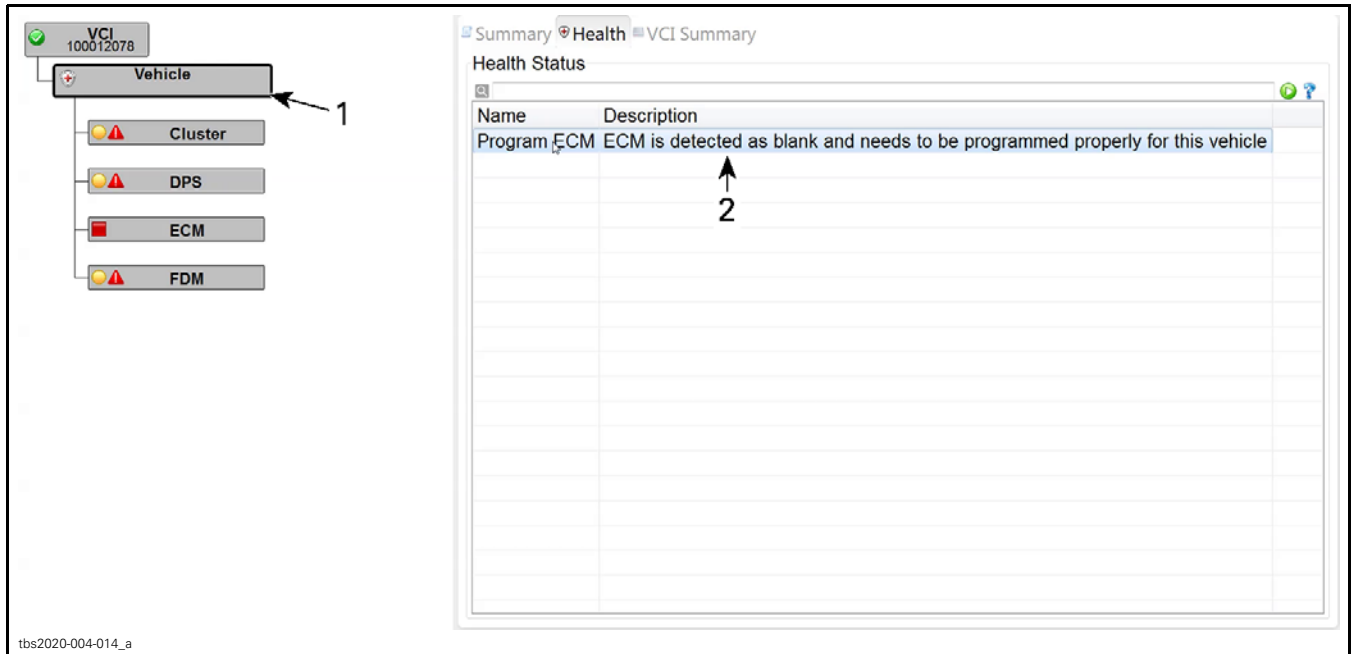
8. Scan the vehicle again.

9. Go to:

- Summary page
- Vehicle button
- Health tab.

Validate the following to confirm that the ECM reset has succeed:

- No vehicle description in the Vehicle button
- In the description field, ECM is detected as blank...



1. *Vehicle* button
2. *Description* field.