### SERVICE BULLETIN

**Classification:** AT14-003a  
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**Date:** April 29, 2015

#### NISSAN; PROGRAMMING BLANK TCMs

This bulletin has been amended to update the applied vehicles and to add information for the replacement of control valves. Please discard the previous version.

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#### SERVICE INFORMATION

Replacement 5 speed rear wheel drive automatic transmission assemblies (A/T) and replacement "control valves" now come with "blank" transmission control modules (TCM).

Blank TCMs come without software and must first be programmed (not reprogrammed) and then configured after installed before they will function.

When ordering a replacement A/T or control valve, the electronic parts catalog (WIN FAST or equivalent) will list the software (P/N) for a blank TCM under the A/T only.

This bulletin contains details for:

- Saving and copying information from the old (current) TCM and applying it to the new (replacement) A/T or valve body’s blank TCM
- Obtaining the newest TCM P/N in WIN FAST (or other electronic parts catalogs) when not able to access the TCM with CONSULT-III plus (C-III plus)
- Obtaining and installing program information into the new A/T or valve body’s blank TCM when it cannot be copied from the old TCM

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Nissan Bulletins are intended for use by qualified technicians, not ‘do-it-yourselfers’. Qualified technicians are properly trained individuals who have the equipment, tools, safety instruction, and know-how to do a job properly and safely. NOTE: If you believe that a described condition may apply to a particular vehicle, DO NOT assume that it does. See your Nissan dealer to determine if this applies to your vehicle.
Blank TCM Programming Procedure (summary)

Below is a summary of the steps for blank TCM programming. For details, go to page 3.

NOTE: Erase any stored DTCs and perform DTC related repairs before starting the programming procedure in this bulletin. Refer to ASIST and the ESM as needed.

For vehicles where the old/current TCM can be accessed (TCM P/N can be read) with C-III plus:

a. Connect and launch C-III plus:
   - From the C-III plus home page, Select Re/Programming, Configuration.
   - Proceed to Re/programming.
   - Select Programming (not reprogramming).

b. Select Before Replace ECU.

c. Save the current TCM P/N and Vehicle Identification Number (VIN).

d. Replace the 5 speed rear wheel drive automatic transmission assembly or control valve with a new one that contains a blank TCM.

e. Select vehicle model and year, and then select Confirm.

f. Select After Replace ECU.

g. Select Start (to begin programming).

h. Once programming has completed, configure the new TCM and erase DTCs.

i. Close C-III plus.

For vehicles where the old/current TCM cannot be accessed (TCM P/N cannot be read) with C-III plus:

a. Replace the 5 speed rear wheel drive automatic transmission assembly or control valve with a new one that contains a blank TCM.

b. Obtain the TCM software P/N by using the VIN in the electronic parts catalog to look up the part number for the transmission assembly (A/T).

   When ordering a replacement A/T or control valve, the electronic parts catalog (WIN FAST or equivalent) will list the software (P/N) for a blank TCM under the A/T only.

c. Connect C-III plus, get to the screen that shows the selection Programming, and then select Programming.

d. Select After Replace ECU.

e. Select the P/N from the list that matches the one taken from the parts catalog.
   - Double-check and make sure the correct P/N has been selected.

f. Select Start (to begin programming).

g. Once programming has completed, configure the new TCM and erase DTCs.

h. Close C-III plus.
Blank TCM Programming Procedure (details)

NOTE:

- **Always** enter the VIN into the Nissan electronic parts catalog (WIN FAST or equivalent), when ordering (looking up) a replacement A/T assembly or control valve.

- Do not replace/install the new A/T or valve body, with blank TCM, until told to do so in the SERVICE PROCEDURE.

Can the old TCM (the one that will be replaced) be accessed with C-III plus?

**NOTE:** To determine if the old TCM can be accessed with C-III plus: Select Diagnosis (One System) > Transmission, and then read the TCM P/N. Can the TCM P/N be accessed and read?

**YES** – go to **PROGRAM BLANK TCM** (when old TCM is accessible with C-III plus) on the next page.

If the vehicle’s old/current TCM can be accessed with C-III plus, its current internal P/N can be saved and then applied to the blank TCM.

**NO** – go to **PROGRAM BLANK TCM** (when old TCM is NOT accessible with C-III plus) on page 22.

If the vehicle’s old/current TCM cannot be accessed with C-III plus, the software program P/N to be programmed into the blank TCM will need to be determined by entering the VIN into the Electronic Parts Catalog (WIN FAST or equivalent).
SERVICE PROCEDURE

PROGRAM BLANK TCM (when old TCM is accessible with C-III plus)

NOTE:

- Do not remove the old A/T or control valve and install the new A/T or control valve with blank TCM until told to do so in the SERVICE PROCEDURE.
- Use this procedure if the vehicle’s old/current TCM can be accessed with C-III plus.

IMPORTANT: Before starting the program procedure, make sure:

- ASIST on the CONSULT PC has been freshly synchronized (updated).
- All C-III plus software updates (if any) have been installed.
  
  NOTE: The CONSULT PC automatically gets applicable TCM programming data during ASIST synchronization.

- A screen print for Warranty documentation can be done from the CONSULT PC during this process while still connected to the vehicle.

  NOTE: After programming is complete, you will be required to perform write configuration and DTC erase.
1. Connect the C-III plus Vehicle Interface (plus VI) to the vehicle.
   - Make sure to use the correct VI for C-III plus (plus VI).

   **CAUTION:** Make sure the plus VI is securely connected to the DLC. If the plus VI connection is loose during programming, the process will be interrupted and the **TCM may be damaged.**

2. Connect the AC Adapter to the CONSULT PC.

   **CAUTION:** Be sure to connect the AC Adapter. If the CONSULT PC battery voltage drops during programming, the process will be interrupted and the **TCM may be damaged.**

3. Connect a battery charger to the vehicle battery:
   - GR-8 (Battery and Electrical Diagnostic Station) set to “Power Supply.”

   **CAUTION:** Be sure the battery charger is connected securely to the battery. Make sure the battery voltage stays between 12.0V and 15.5V during programming. If the battery voltage goes out of this range during programming, the **TCM may be damaged.**

4. Turn off all external Bluetooth® devices (e.g., cell phones, printers, etc.) within range of the CONSULT PC and the plus VI.

   **CAUTION:** Make sure to turn off all external Bluetooth® devices. If Bluetooth® signal waves are within range of the CONSULT PC and the plus VI during programming, programming may be interrupted and the **TCM may be damaged.**

5. Turn the ignition ON (engine OFF).
   - The engine must not start or run during the programming procedure.

6. Turn OFF all vehicle electrical loads such as exterior lights, interior lights, HVAC, blower fan, rear defogger, audio, NAVI, seat heater, steering wheel heater, etc.

   **IMPORTANT:** Make sure to turn OFF all vehicle electrical loads. Make sure the battery voltage stays between **12.0V** and **15.5V** during programming. If the battery voltage goes out of this range during programming, the **TCM may be damaged.**
7. Open / start C-III plus.
   - You will be accessing the vehicle’s old TCM.

   **NOTE:** All pictures of C-III plus screens throughout this bulletin are examples. Actual C-III plus screens on your CONSULT PC may vary slightly.

8. Wait for the plus VI to be recognized.
   - The serial number will display when the plus VI is recognized.

9. Select **Re/programming, Configuration**.
10. Use arrows (if needed) to view and read all precautions.

11. Check the box confirming the precautions have been read.

   **NOTE:** The box cannot be checked until all precautions in step 10 have been viewed and read.

12. Select **Next**.

13. Select **Nissan, Vehicle Name, Model Year**, and then **Select**.
   - If the screen in Figure 4 does not display, skip to step 14.
14. Make sure **VIN or Chassis #** matches the vehicle’s VIN.

15. If the correct VIN is displayed, select **Confirm**.

![Figure 5](image1)

**Step 14**

![Figure 6](image2)

**Step 15**

**Step 16**

16. Select **Confirm**.
17. Select **TRANSMISSION**.

![Figure 7](image)

**NOTE:** If the old TCM cannot be accessed with C-III plus, go to page 22, **Program Blank ECM (When ECM is NOT Accessible With C-III plus)**.

18. Select **Programming**. Do not select **Reprogramming**.

![Figure 8](image)
• If the screen in Figure 9 appears, select **Next**.

![Figure 9](image)

**Figure 9**

19. Select **Before Replace ECU**.

![Figure 10](image)

**Figure 10**
20. Select **Save**.

![Figure 11](image1)

**Step 20**

21. Select **Next**.

![Figure 12](image2)

**Step 21**
22. Make sure the VIN in the **Saved Data List** (Figure 13) matches the vehicle’s VIN.
   - If the VIN is **not** correct, select **Delete**, and then start over from the C-III plus Home screen.

23. If the VIN is correct, select **Confirm**.
   - This step will save the vehicle’s existing TCM information.

24. After **Confirm** is selected in step 23, the screen in Figure 14 will display. Select **Home**.
25. Replace the old A/T assembly or valve body with a new one (with blank TCM) now:
   - Refer to the appropriate section in the ESM for A/T or control valve removal and installation.
   - If the CONSULT PC is removed from the vehicle for any reason, make sure the saved data is not erased.

26. After the A/T or control valve have been replaced:
   a. Open / start C-III plus.
   b. Make sure the ignition is ON (engine OFF).
      - **The engine must not start during the programming procedure.**
   c. Make sure the GR8 / battery charger is connected.
      
      **NOTE:** All pictures of C-III plus screens throughout this bulletin are examples. Actual C-III plus screens on your CONSULT PC may vary slightly.

27. Wait for the plus VI to be recognized.
   - The serial number will display when the plus VI is recognized.

![Step 27: plus VI is recognized](image)

**Figure 15**
28. Select **Re/programming, Configuration**.

![Figure 16](image16.png)

29. Use arrows (if needed) to view and read all precautions.

30. Check the box confirming the precautions have been read.

31. Select **Next**.

![Figure 17](image17.png)
32. Select **Nissan, Vehicle Name, Model Year**, and then **Select**.
   - If the screen in Figure 18 does not display, skip to step 33.

![Figure 18](image)

33. Make sure **VIN or Chassis #** matches the vehicle’s VIN.

34. If the correct VIN is displayed, select **Confirm**.

![Figure 19](image)
35. Select Confirm.

NOTE: If there is only one data file saved on C-III plus, it will automatically be selected. If there is more than one, select the data file for your vehicle, and then select Confirm.

![Figure 20](image)

36. Select After Replace ECU.

![Figure 21](image)
37. Use arrows to view and read all precautions.
38. Check the box confirming the precautions have been read.
39. Select **Next**.

Figure 22

40. Select **Next**.

Figure 23
41. Select **Next**.

![Figure 24](image)

42. Make sure **OK** is highlighted **green** (battery voltage must be between **12.0 and 15.5 Volts**).

43. Select **Next**.

**IMPORTANT**: Optimum battery voltage operating range for programming is **12.0-13.5V**. Battery voltage must stay between **12.0 and 15.5 Volts** during programming or TCM programming may be interrupted and the TCM may be damaged.

![Figure 25](image)
NOTE: In the next step, the programming process will begin when Start is selected.

CAUTION: DO NOT stop programming after selecting “Start”. Doing so may damage the TCM. Allow programming to complete.

44. Select Start.

45. Wait for both progress bars to complete.
46. When the screen in Figure 28 displays, programming is complete.

   **NOTE:** If the screen in Figure 28 does **not** display (programming is **not** complete), refer to the information on the next page.

47. Disconnect the GR8 / battery charger from the vehicle.

48. Select **Next**.

   ![Figure 28](image)

**NOTE:** Completing write configuration and erasing DTCs are required before C-III plus will provide the final programming confirmation report:

- Go to, "**After Programming has Completed: Write Configuration and Erase DTCs**” on page 37.
If programming does not complete and the “!?” symbol displays as shown in Figure 29:

- Check battery voltage (12.0 – 15.5V).
- The ignition is ON and the engine is OFF.
- External Bluetooth® devices are OFF.
- All electrical loads are OFF.
- Select Retry and follow the on screen instructions.

**NOTE:** Retry may not go through on the first attempt. It can be selected more than once.

If programming does not complete and the “X” symbol displays as shown in Figure 30:

- Do not disconnect the plus VI or shut down C-III plus if reprogramming does not complete.
- Check battery voltage (12.0 – 15.5V).
- The CONSULT A/C adapter is plugged in.
- The ignition is ON and the engine is OFF.
- The transmission is in Park.
- All C-III plus / plus VI cables are securely connected.
- All C-III plus updates are installed.
- Select Home, and then restart the program procedure from the beginning.
PROGRAM BLANK TCM (When TCM is NOT Accessible With C-III plus)

NOTE: Use this procedure if the vehicle’s old/current TCM cannot be accessed with CONSULT-III plus.

IMPORTANT: Before starting the program procedure, make sure:
- ASIST on the CONSULT PC has been freshly synchronized (updated).
- All C-III plus software updates (if any) have been installed.
  **NOTE:** The CONSULT PC automatically gets applicable TCM programming data during ASIST synchronization.
- A screen print for Warranty documentation can be done from the CONSULT PC during this process while still connected to the vehicle.
  **NOTE:** After programming is complete, you will be required to perform “write configuration” and “DTC erase”.

1. **Install the new A/T assembly or Control Valve Assembly (valve body) now.**
   - Refer to the appropriate Service Manual for Transmission or Valve Body replacement information.

2. **Determine the software program part number** that will be used during the programming operation as follows:
   a. Go to your Nissan electronic parts catalog (WIN FAST or equivalent).
      **NOTE:** All pictures of WIN FAST screens in this bulletin are examples. Actual screens may vary slightly. Other brand electronic catalogs may view and operate differently.
   b. Enter the VIN of the vehicle being repaired (**always** enter the VIN).
   c. Select OK.

![Example](image)
d. Select **SEC**.

![Image](image1.png)

**Figure 2a**

e. Scroll down the list and select **Sec-No 310, Description – AUTO TRANSMISSION, TRANSAXLE & FITTING.**

**NOTE:** The required software data for TCM programing is found in this section, even if you are replacing only the valve body.

f. Select the down arrow.

g. Select **OK**.

![Image](image2.png)

**Figure 3a**
h. Select the part number code for the transmission assembly:
   - 31020 for 2WD
   - 31000 for 4WD

i. Select the **P/No Search** (part number) button.
j. A screen similar to the one in Figure 5a will display. Write down the TCM software P/N. It will be listed as follows:

- 2WD: AUTOMATIC TRANSMISSION ASSEMBLY
- 4WD: AUTOMATIC TRANSMISSION ASSEMBLY-W/TRANSFER

NOTES:

- The required software data for TCM programming is found here, even if you are replacing only the valve body.

- The first five digits of the program P/N in WIN FAST are 31020 for 2WD, or 31000 for 4WD.

- The last five digits are specific to the vehicle being worked on (based on the VIN).
3. Connect the C-III plus Vehicle Interface (plus VI) to the vehicle.
   - Make sure to use the correct VI for C-III plus (plus VI).

   **CAUTION:** Make sure the plus VI is securely connected to the DLC. If the plus VI connection is loose during programming, the process will be interrupted and the TCM may be damaged.

4. Connect the AC Adapter to the CONSULT PC.

   **CAUTION:** Be sure to connect the AC Adapter. If the CONSULT PC battery voltage drops during programming, the process will be interrupted and the TCM may be damaged.

5. Connect a battery charger to the vehicle battery:
   - GR-8 (Battery and Electrical Diagnostic Station) set to “Power Supply”.

   **CAUTION:** Be sure the battery charger is connected securely to the battery. Make sure the battery voltage stays between 12.0V and 15.5V during programming. If the battery voltage goes out of this range during programming, the TCM may be damaged.

6. Turn off all external Bluetooth® devices (e.g., cell phones, printers, etc.) within range of the CONSULT PC and plus VI.

   **CAUTION:** Make sure to turn off all external Bluetooth® devices. If Bluetooth® signal waves are within range of the CONSULT PC and plus VI during programming, programming may be interrupted and the TCM may be damaged.

7. Turn the ignition ON (engine OFF).
   - The engine must not start or run during the programming procedure.

8. Turn OFF all vehicle electrical loads such as exterior lights, interior lights, HVAC, blower, rear defogger, audio, NAVI, seat heater, steering wheel heater, etc.

   **IMPORTANT:** Make sure to turn OFF all vehicle electrical loads. Make sure the battery voltage stays between 12.0V and 15.5V during programming. If the battery voltage goes out of this range during programming, the TCM may be damaged.

**NOTE:** All pictures of C-III plus screens throughout this bulletin are examples. Actual C-III plus screens on your CONSULT PC may vary slightly.

10. Wait for the plus VI to be recognized.
   - The serial number will display when the plus VI is recognized.

### Figure 6a

![Step 10: plus VI is recognized]

11. Select **Re/programming, Configuration**.

### Figure 7a

![Step 11]

![Figure 6a](image-url)

![Figure 7a](image-url)
12. Use arrows to view and read all precautions.
13. Check the box confirming the precautions have been read.
   **NOTE:** The box cannot be checked until all precautions in step 12 have been viewed and read.
14. Select **Next**.

15. Select **Nissan, Vehicle Name**, the correct **Model Year**, and then **Select**.
   - If the screen in Figure 9a does not display, skip to step 16.
16. If the correct VIN is displayed, select Confirm.

Figure 10a

17. Verify the correct VIN is displayed, and then select Confirm again.

- If the VIN is not correct re-type the VIN and then select Confirm.

Figure 11a
18. Select **Transmission**.

![Figure 12a](image)

**Step 18**

19. Select **Programming**. **Do not** select **Reprogramming**.

![Figure 13a](image)

**Step 19**
20. Select **Next**.

![Figure 14a](image)

21. Select **After Replace ECU**.

![Figure 15a](image)
22. Use arrows (if needed) to view and read all precautions.
23. Check the box confirming the precautions have been read.

**NOTE:** The box cannot be checked until all precautions in step 23 have been viewed and read.

24. Select **Next**.

25. Select the TCM software P/N that matches the P/N written down in step 2j on page 25, and then select **Next**.
26. Select Next.

27. Make sure OK is highlighted green (battery voltage must be between 12.0 and 15.5 Volts).

28. Select Next.

**IMPORTANT:** Optimum battery voltage operating range for programming is 12.0-13.5V. Battery voltage must stay between 12.0 and 15.5 Volts during programming or TCM programming may be interrupted and the TCM may be damaged.
NOTE: In the next step, the programming process will begin when **Start** is selected.

**CAUTION:** **DO NOT** stop programming after selecting “**Start**”. This may damage the TCM. Allow programming to complete.

29. Select **Start**.

![Figure 20a](image)

30. Wait for both progress bars to complete.

![Figure 21a](image)
31. When the screen in Figure 22a displays, programming is complete.

**NOTE:** If the screen in Figure 22a does not display (programming does not complete), refer to the information on the next page.

32. Disconnect the GR8 / battery charger from the vehicle.

33. Select **Next**.

**NOTE:** Completing write configuration and erasing DTCs are required before C-III plus will provide the final programming confirmation report:

- Go to, “After Programming has Completed: Write Configuration and Erase DTCs” on page 37.
If programming does not complete and the “!?” symbol displays as shown in Figure 23a:

- Check battery voltage (12.0 – 15.5V).
- The ignition is ON and the engine is OFF.
- External Bluetooth® devices are OFF.
- All electrical loads are OFF.
- Select Retry and follow the on screen instructions.

**NOTE:** Retry may not go through on the first attempt. It can be selected more than once.

If programming does not complete and the “X” symbol displays as shown in Figure 24a:

- Do not disconnect the plus VI or shut down C-III plus if reprogramming does not complete.
- Check battery voltage (12.0 – 15.5V).
- The CONSULT A/C adapter is plugged in.
- The ignition is ON and the engine is OFF.
- The transmission is in Park.
- All C-III plus / plus VI cables are securely connected.
- All C-III plus updates are installed.
- Select Home, and then restart the program procedure from the beginning.
After Programming has Completed: Write Configuration and Erase DTCs

1. Follow the instructions as stated on the next few screens:
   - First screen: Turn the ignition OFF, and then ON,
   - (a window will then state System Call is being performed),
   - (the next window will then state C-III plus is communicating with the ECU).
   - Next screen: Turn the ignition OFF, and then ON.
   - When “Complete” appears in the box, select Next.

   ![Figure 25a](image)

2. Perform write configuration of the TCM.
   a. Highlight the Part Number After Configuration and Other Information sections by clicking on them.
   b. Select Next.

   ![Figure 26a](image)
3. Continue with write configuration and DTC erase by following the instructions on the next few screens:
   - Window in first screen: Writing data is being performed (it may have already past).
   - First screen (finishing write configuration): Turn the ignition OFF, then ON, and then select Next.
   - Next screen (Erase All DTCs): Turn the ignition OFF (a window will state ERASE).
   - When done, a screen similar to Figure 27a will appear.

4. Verify the before and after part numbers are different.
5. Select Print to print a copy of this screen (Figure 27a) and attach it to the repair order.
6. Select Confirm.

7. Select Home to return to the C-III plus home screen.
8. Close C-III plus.
9. Turn the ignition OFF.
10. Disconnect the plus VI from the vehicle.
11. Test drive the vehicle to make sure it operates correctly.