

Classification:
EC00-008c

Reference:
ITB00-038c

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ECM REPLACEMENT PROCEDURES

ATTENTION: THIS BULLETIN HAS BEEN REVISED.

- **The Service Procedures for replacing an ECM on an Applied vehicle were revised.**
- **Please use this bulletin ITB00-038c for complete information.**
- **Discard all previously distributed copies of ITB00-038.**

APPLIED VEHICLES: All 2000 and later
1999 Q45 (FY33)
1999 QX4 (JR50) from VIN JNRAR07**XW060101

IF YOU CONFIRM:

The Electronic Control Module (ECM) needs to be replaced on a 2000 MY and later vehicle, or an Applied 1999 MY vehicle (see above).

ACTIONS:

- Re-register all customer keys if the vehicle has ECM based NATS (see step 1).
- Check ASIST for any new updates for the new ECM you're installing (see steps 2 – 4).
- Perform the "ACCELERATOR PEDAL & THROTTLE VALVE CLOSED POSITION LEARNING" procedure (see step 5).
- After installing the new ECM, perform the "IDLE AIR VOL LEARNING" procedure (when applicable) using CONSULT-II. See step 6.
- For 2005 and later vehicles, enter the vehicle VIN into the new ECM (see step 7).

CAUTION: Failure to perform all the work steps in the specified order can cause poor engine running, MIL 'ON', or vehicle emission test rejection.

IMPORTANT: The purpose of "ACTIONS" (above) is to give you a quick idea of the work you will be performing. You **MUST** closely follow the entire Service Procedure (starting on page 3) as it contains information that is essential to successfully completing this repair.

CLAIMS INFORMATION

If the ECM is replaced WITHOUT re-programming, submit a Primary Failed Part (PP) line using the following claims coding:

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
Replace Engine Control Module	(1)	DE28AA	(2)	32	(3)
Combination, if required: Enter VIN into ECM. 2005-up vehicles ONLY.		DE281A			0.2 hrs
Perform Idle Air Volume Learning procedure (6)		DE96AA (6)			(3)

PLUS, if required

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
Reprogram NATS Immobilizer key(s)		RL49AA			(3)

PLUS, if required

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
As per the indicated Section "E" Diagnostic Op Code		(5)			(5)

OR

If the ECM is replaced and requires re-programming, submit a Primary Failed Part (PP) line using the following claims coding:

NOTE: You **MUST** retain the final CONSULT-II printout with the ECM P/N and Calibration ID number and attach it to the work order as a permanent record.

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
Replace Engine Control Module	(4)	DE28AA	(2)	32	(3)
Reprogram New ECM		DE97AA			(3)
Combination, if required: Enter VIN into ECM. 2005-up vehicles ONLY.		DE281A			0.2 hrs
Perform Idle Air Volume Learning procedure (6)		DE96AA (6)			(3)

PLUS, if required

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
Reprogram NATS Immobilizer key(s)		RL49AA			(3)

PLUS, if required

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
As per the indicated Section "E" Diagnostic Op Code		(5)			(5)

NOTES:

- (1) Use the indicated ECM P/N as the PFP.
- (2) Use the customer complaint.
- (3) Reference the current Infiniti Flat Rate Manual and use the indicated Flat Rate Time for the vehicle being repaired.
- (4) Reference the final CONSULT-II printout and use the indicated ECM P/N as the PFP.
- (5) As Indicated from the Main Section "E" diagnostic Op Code.
- (6) Includes adequate time to perform the "ACCELERATOR PEDAL & THROTTLE VALVE CLOSED POSITION LEARNING" procedure.

SERVICE PROCEDURE

Check NATS On The Vehicle

1. Check to see if the vehicle you're working on has "ECM based" NATS V2.0 or V5.0.
 - a. If the vehicle has ECM based NATS V2.0 or V5.0, it will NOT start after you install a service replacement ECM. So you'll have to re-register all ignition keys, including spare keys with CONSULT-II and the purple NATS card. After you do this, proceed with step 2.
 - If you do not know how to re-register the keys, refer to the ESM for the NATS key re-registration procedure.
 - b. If the vehicle has "BCM based" NATS (instead of ECM based NATS V2.0 or V5.0), you do NOT have to re-register the ignition or spare keys. Proceed with step 2.

Check For ECM Data Updates in ASIST

2. In ASIST, select **CONSULT Utilities** >> **ECM/TCM Data**. Then choose Model and Model Year (see Figure 1).

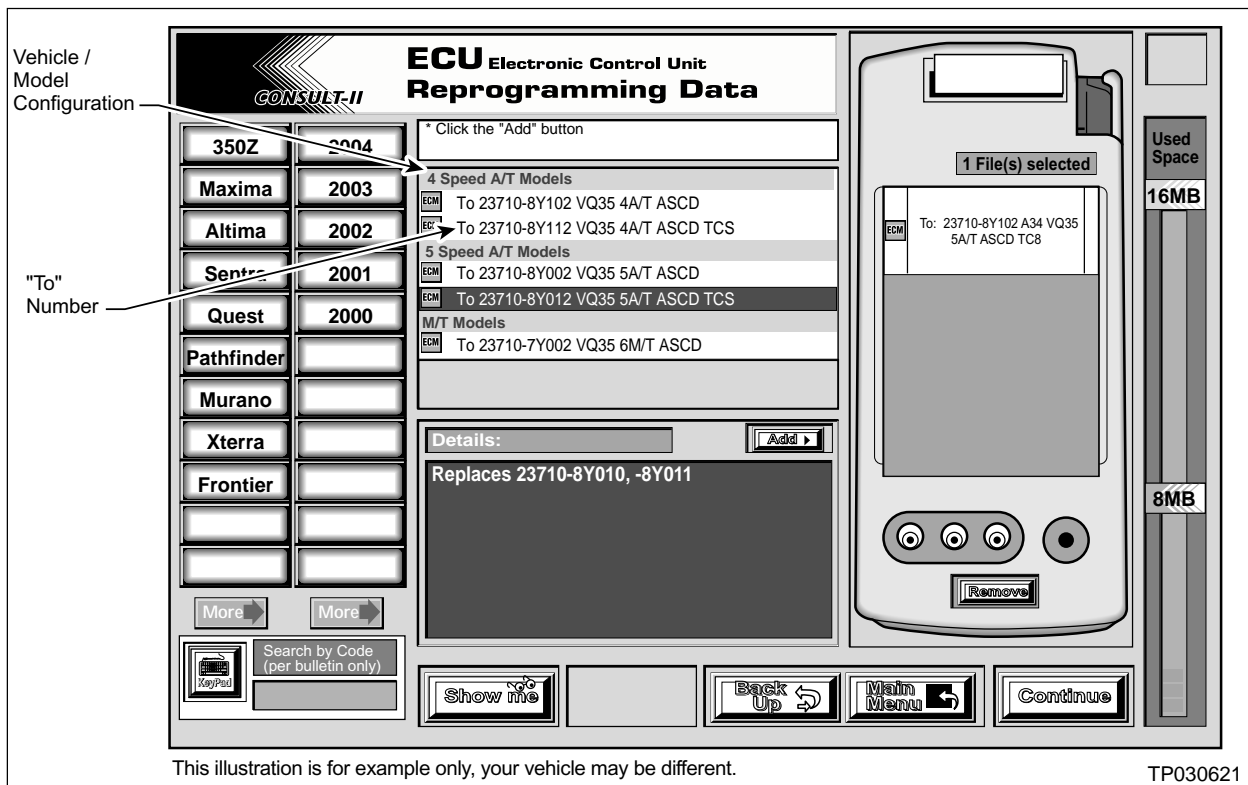


Figure 1

3. Look for ECM Data Updates (listed by ECM P/Ns and vehicle configuration) in the top, center display panel of the ASIST screen (see Figure 1).
 - a. If there is no updates listed for your vehicle configuration, you do NOT have to reprogram the service replacement ECM. Proceed with step 5 (next page).
 - b. If there is updates listed for your vehicle configuration, see if they apply to the service replacement ECM you're going to install. Do this by performing step 4 (next step).

4. Select the "configuration" on the screen for the vehicle you're working on. Then confirm that your ECM is listed in the "Replaces 23710-XXXXX, -XXXXX, etc" section in the lower, center "Details" panel of the ASIST screen (see Figure 1).
 - a. If your ECM is listed in the "Details" panel, you must reprogram the ECM with the latest data update. After you do this, proceed with step 5.
 - If you do not know how to reprogram the ECM, click here for the ECM Reprogramming Procedure or refer to Attachment A in the printed copy of this bulletin.
 - CAUTION:** The 1999-2000 Q45 and 1999-2000 QX4 have a gray CONSULT connector AND a white GST connector. Do NOT attempt to perform the ECM Reprogramming procedure with CONSULT-II connected to the gray CONSULT connector. See the appropriate ESM for further details if necessary.
 - b. If your ECM is NOT listed in the "Details" panel, you do NOT have to reprogram the ECM. Proceed with step 5.

Accelerator Pedal & Throttle Valve Closed Position Learning

5. Perform the Accelerator Pedal & Throttle Valve Closed Position Learning as follows:
 - a. Make sure the accelerator pedal is fully released.
 - b. Turn the ignition switch "ON" for 2 seconds.
 - c. Turn the ignition switch "OFF" for 10 seconds.
 - d. Turn the ignition switch "ON" for 2 seconds, then
 - e. Turn the ignition switch "OFF" again for 10 seconds (see Figure 2).
 - f. Proceed with step 6 (next page).

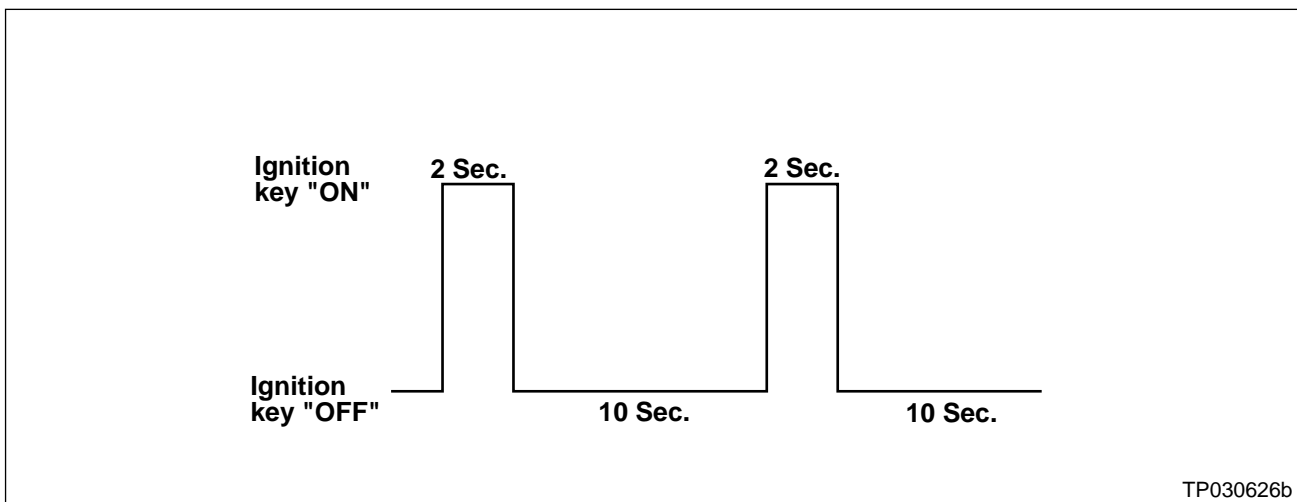


Figure 2

Perform Idle Air Volume Learning (IAVL)

NOTE: Make sure all electrical loads are turned OFF, including A/C, defroster, radio, lights, etc. while performing the following procedures. Also, make sure the engine cooling fans are NOT operating during the following procedures.

6. Perform the Idle Air Volume Learning procedure as follows:

- a. Connect CONSULT-II to the vehicle.
- b. Warm up engine and transmission to operating temperature.
- c. In the **CONSULT WORK SUPPORT** mode, select **IDLE AIR VOL LEARN**. See Figure 3.

NOTE:

- If IDLE AIR VOL LEARN is not shown as a SELECT WORK ITEM on CONSULT, the vehicle does not need the procedure.
- In this case only, this bulletin is complete, no further action is needed.

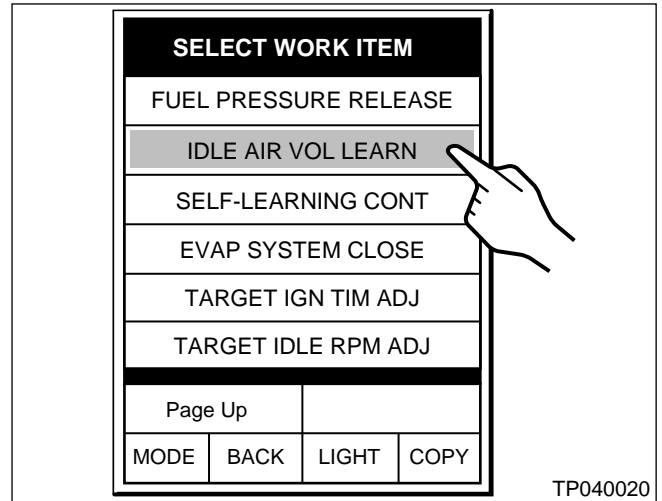


Figure 3

- d. Press **START** on the "IDLE AIR VOL LEARN" screen. See Figure 4.

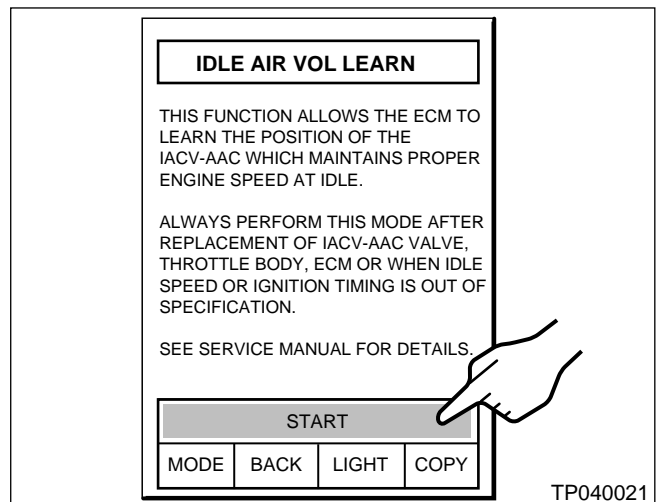


Figure 4

For 2005 and Later MY Vehicles ONLY: Enter VIN Into New Service Replacement ECM

7. Enter the VIN into the new service replacement ECM as follows:

- a. Select **ENGINE** on the "Select System" screen. See Figure 8.

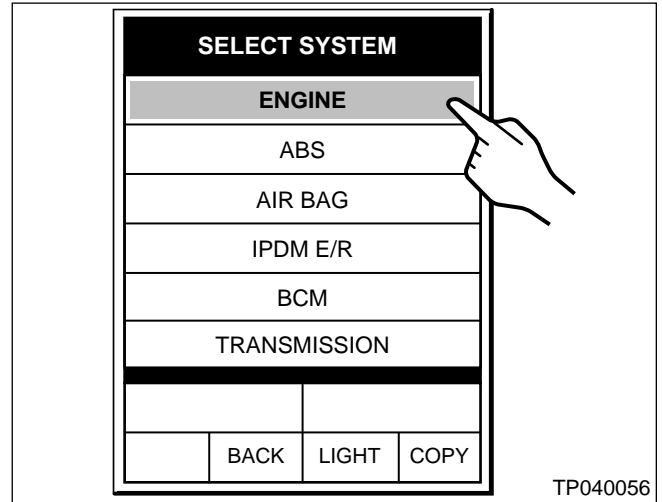


Figure 8

- b. Select **WORK SUPPORT** on the "Select Diag Mode" screen. See Figure 9.

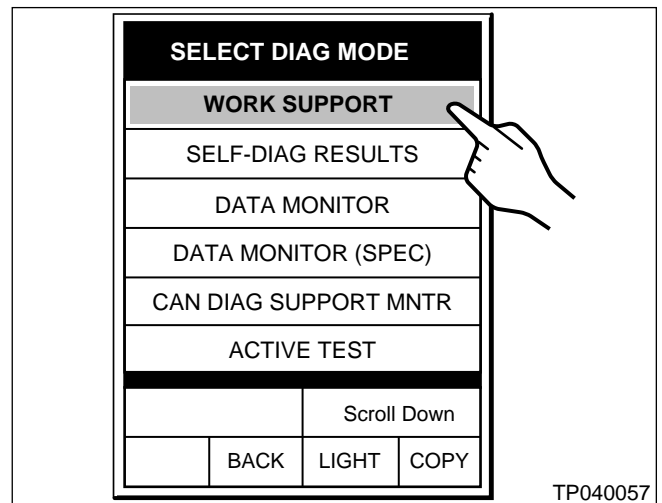


Figure 9

- c. Scroll down and select **VIN REGISTRATION** on the "Select Work Item" screen. See Figure 10.

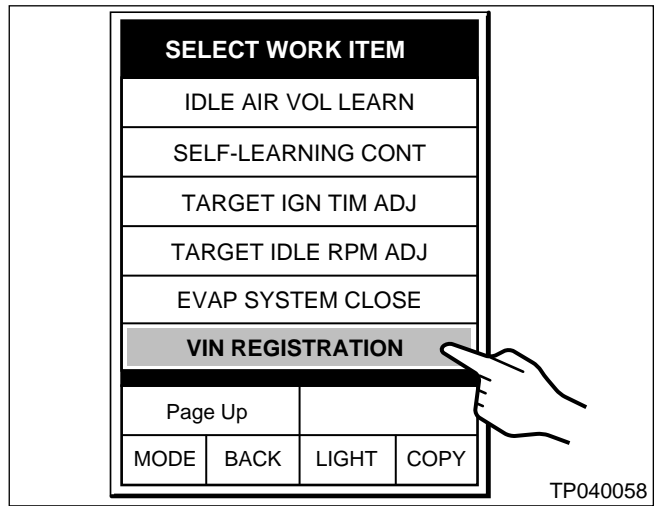


Figure 10

- d. Press **START** on the "VIN Registration" screen. See Figure 11.

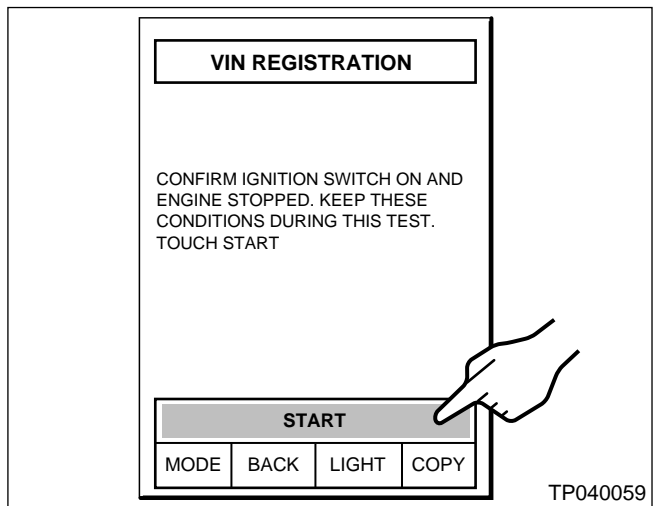


Figure 11

- e. Select **INPUT** on the "VIN Registration" screen. See Figure 12.

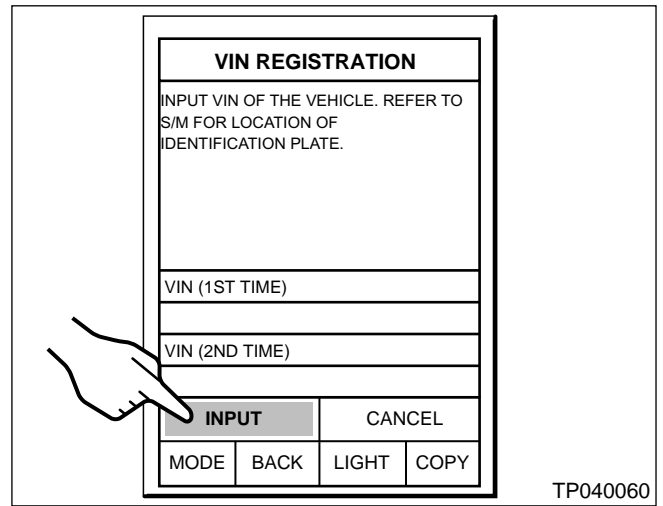


Figure 12

- f. Enter the entire VIN using the keyboard. See Figure 13.
- Use **CHNG** to switch between the letters and numbers keyboard screens.

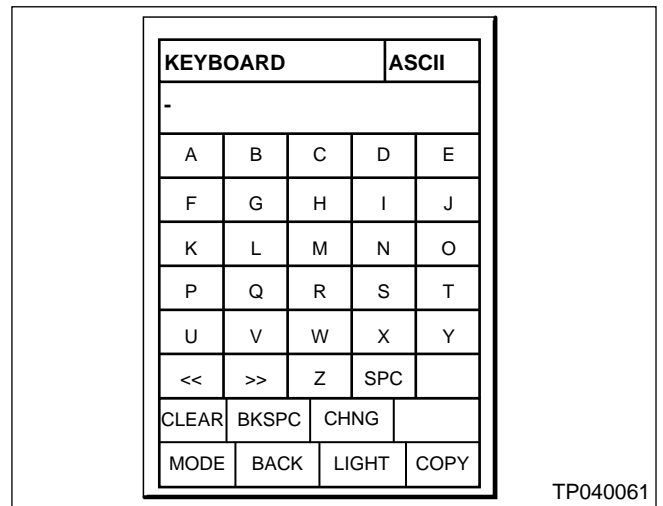


Figure 13

- g. Once the entire VIN is entered, select **ENTER** on the "Keyboard" screen. See Figure 14.

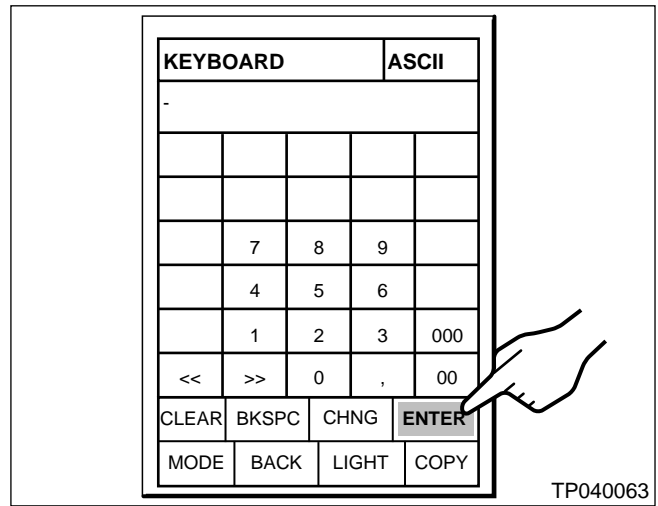


Figure 14

- h. Select **INPUT** on the "VIN Registration" screen and enter the entire VIN again. See Figure 15.

- You **MUST** enter the VIN a second time for confirmation purposes.

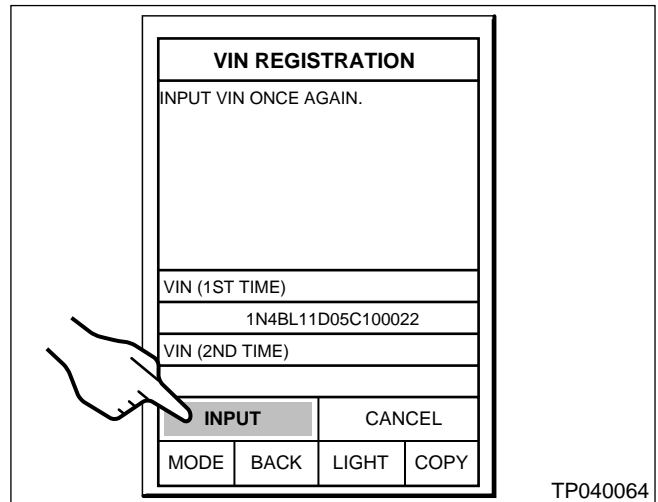


Figure 15

- i. Once the entire VIN is entered (a second time), select **ENTER** on the “Keyboard” screen. See Figure 16.

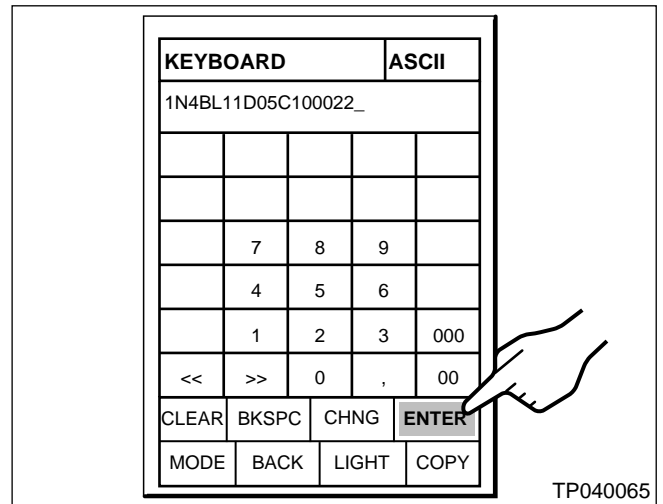


Figure 16

- j. Select **START** on the “VIN Registration” screen to complete the VIN registration process. See Figure 17.
- k. Turn the ignition switch OFF and wait at least 10 seconds.

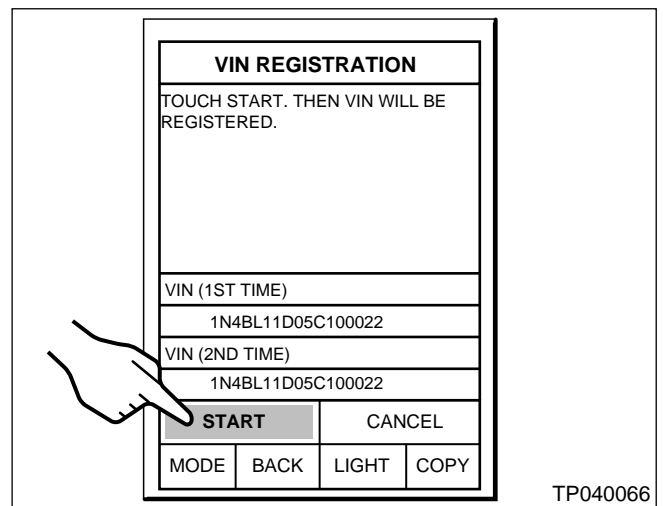


Figure 17

