

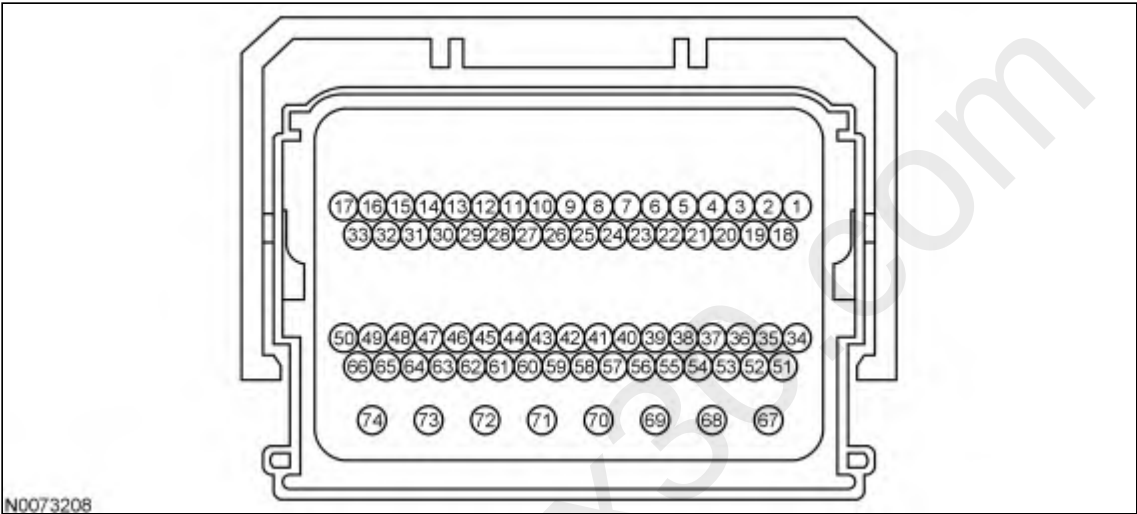
Z: Keep Alive Power (KAPWR)

Note: Regeneration may occur during normal operation. During regeneration, diagnostic procedures may display biased values. If a regeneration occurs during diagnostic procedures, allow the process to complete before continuing diagnostics.

This pinpoint test is intended to diagnose the following:

- battery cables loose or intermittent connections
- harness circuit: KAPWR
- PCM (12A650)

Powertrain Control Module-B (PCM-B) Connector



Pin	Circuit
62	KAPWR (Keep Alive Memory Power)

Z1 CHECK FOR DTCS

- Carry out a visual inspection.
- Carry out the PCM self-test.
- Record the freeze frame data.
- Clear the PCM DTCs.
- Carry out the PCM self-test.

Are DTCs P0603, P0606 or P2610 present?

Yes	GO to Z2 .
No	The concern is not present at this time. CHECK for a loose connection, and damaged or corroded terminals. WIGGLE the harness attempting to recreate the concern. REPAIR as necessary. RETURN to Section 3, Symptom Charts for further direction.

Z2 CHECK THE CHARGING SYSTEM

- Check the battery and charging system. Refer to the Workshop Manual Section 414-00, Charging System, Inspection and Verification.

Is a concern present?

Yes	REPAIR as necessary. REFER to the Workshop Manual Section 414-00, Charging System, Symptom Chart to diagnose the system voltage low or battery is discharged symptom or the system voltage high symptom. Clear the PCM DTCs. REPEAT the self-test.
No	For Transit, GO to Z4 . For all others, GO to Z3 .

Z3 CHECK THE KAPWR CIRCUIT FOR VOLTAGE

- Ignition OFF.
- PCM-B connector disconnected.
- Ignition ON, engine OFF.
- Measure the voltage between:

(+) PCM-B Connector, Harness Side	(-)
KAPWR - Pin 62	Ground

Is the voltage greater than 10.5 V?

Yes	GO to Z4 .
No	REPAIR the open circuit. Clear the PCM DTCs. REPEAT the self-test.

Z4 CHECK FOR INTERMITTENT CIRCUIT CONCERNS

- PCM-B connector connected.
- Access the PCM and monitor the B_ (VOLT) and VPWR (VOLT) PIDs.
- While observing the PIDs, wiggle, shake, and bend small sections of the wiring harness to the PCM.

Is a concern present?

Yes	REPAIR as necessary. Clear the PCM DTCs. REPEAT the self-test.
No	For DTC P2610, GO to Z5 . For all others, GO to Z6 .

Z5 CHECK FOR ANY BODY CONTROL MODULE (BDYCM) DTCS

- Carry out the BdyCM self-test.

Are any DTCs present?

Yes	REFER to the Workshop Manual Section 419-10, Multifunction Electronic Modules, to continue diagnosis.
No	GO to Z6 .

Z6 CHECK FOR CORRECT PCM OPERATION

- Disconnect all the PCM connectors.
- Visually inspect for:

- pushed out pins
- corrosion
- Connect all the PCM connectors and make sure they seat correctly.
- Carry out the PCM self-test.
- Verify the concern is still present.

Is the concern still present?

Yes	INSTALL a new PCM. REFER to Section 2, Flash Electrically Erasable Programmable Read Only Memory (EEPROM) .
No	The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector.

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