

# Antilock Brakes / Traction Control Systems: Programming and Relearning

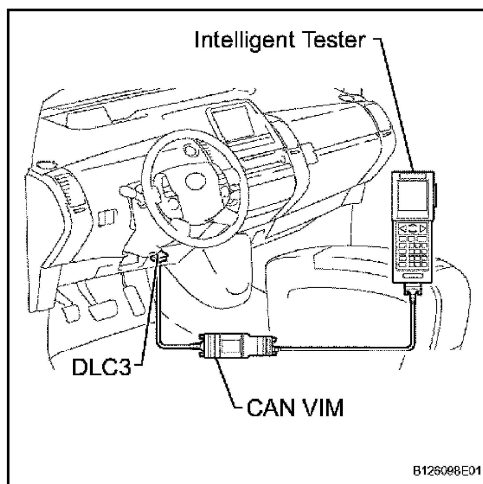
## Initialization

### INITIALIZATION

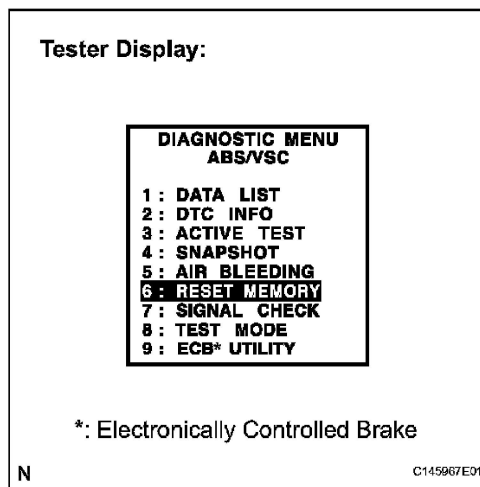
#### 1. INITIALIZATION OF LINEAR SOLENOID VALVE AND CALIBRATION

##### HINT:

- Perform "initialization of linear solenoid valve and calibration" when the skid control ECU, brake actuator or brake pedal stroke sensor is replaced.
  - First perform the pedal stroke sensor zero point calibration and then "initialization of linear solenoid valve and calibration" when the brake stroke sensor is removed / installed or the brake pedal height is adjusted.
  - First bleed air and then perform initialization of linear solenoid valve and calibration when the brake actuator is replaced.
  - "Initialization of linear solenoid valve and calibration" cannot be performed again once it is stored unless the data is cleared or damaged. Perform "initialization of linear solenoid valve and calibration" after the stored value is initialized, except when replacing the skid control ECU.
  - DTC C1259/59 is stored and Electronically Controlled Brake control is partly prohibited when the power switch is turned ON (READY) while the service plug grip of the HV battery is removed, preventing "initialization of linear solenoid valve and calibration" from being normally performed. In this case, connect the service plug grip with the power switch OFF and turn the power switch ON (READY) again to cancel the warning (Electronically Controlled Brake control prohibition).
  - If there is a problem with auxiliary battery (12 V) voltage, "initialization of linear solenoid valve and calibration" cannot be completed normally. Make sure to check battery voltage before performing "initialization of linear solenoid valve and calibration".
  - If the actuator's temperature is high, "initialization of linear solenoid valve and calibration" may not be completed normally. In that case, wait until the temperature decreases and then perform "initialization of linear solenoid valve and calibration".
  - Do not depress the brake pedal during the "initialization of linear solenoid valve and calibration" procedure.
- a. Clear stored value of "initialization of linear solenoid valve and calibration".

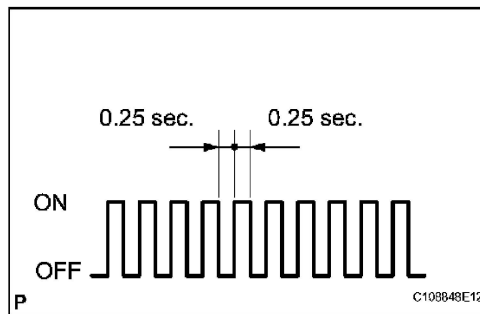


1. Connect the intelligent tester (with CAN VIM) to the DLC3 with the power switch OFF.
2. Turn the power switch ON (READY) with the brake pedal released.
3. Check that the P position switch indicator (P) is on.



4. Perform the RESET MEMORY function under the ABS/VSC MENU.
  5. Perform initialization of linear solenoid valve.
  6. Perform zero point calibration of yaw rate and deceleration sensor.
- b. Perform "initialization of linear solenoid valve and calibration".
1. Connect the intelligent tester to the DLC3 with the power switch OFF.
  2. Turn the power switch ON (READY) with the brake pedal released.
  3. Check that the main switch (parking switch) indicator (P) is on.
  4. Turn the power switch ON (READY) with the brake pedal depressed to display the READY indicator on the meter.
  5. Select the ECB\* UTILITY following the intelligent tester screen.

\*: Electronically Controlled Brake



6. Leave the vehicle stationary without depressing the brake pedal for **1 to 2 minutes**. Check that the interval between blinks of the Brake Control warning light (BRAKE warning (Yellow)) changes from **1 second to 0.25 seconds**.

**NOTE:**

- Leave the meter's "READY" indicator on during the "initialization of linear solenoid valve and calibration". Do not drive the vehicle or depress the brake pedal.
- A DTC that indicates trouble with "initialization of linear solenoid valve and calibration" is stored if entering the TEST MODE with the shift lever in any position other than P.

**HINT:**

- The time needed to complete "initialization of linear solenoid valve and calibration" varies depending on battery voltage.
  - The Brake Control warning light (BRAKE warning (Yellow)) blinks at **1 second** intervals during the "initialization of linear solenoid valve and calibration" and changes to the TEST MODE display when it is completed.
  - The Brake Control warning light (BRAKE warning (Yellow)) blinks at **0.25 second** intervals if the TEST MODE is normal.
7. Check that DTC C1346/66 that indicates trouble with stroke sensor zero point learning is not output when the Brake Control warning light changes to the TEST MODE display upon "initialization of linear solenoid valve and calibration" completion.
  8. Enter the NORMAL MODE from the SIGNAL CHECK following the intelligent tester screen.

2. YAW RATE SENSOR / DECELERATION SENSOR INITIALIZATION

**HINT:** The zero point data of the yaw rate/deceleration sensor stored in the skid control ECU must be cleared when the yaw rate/deceleration sensor is replaced.