■STEERING

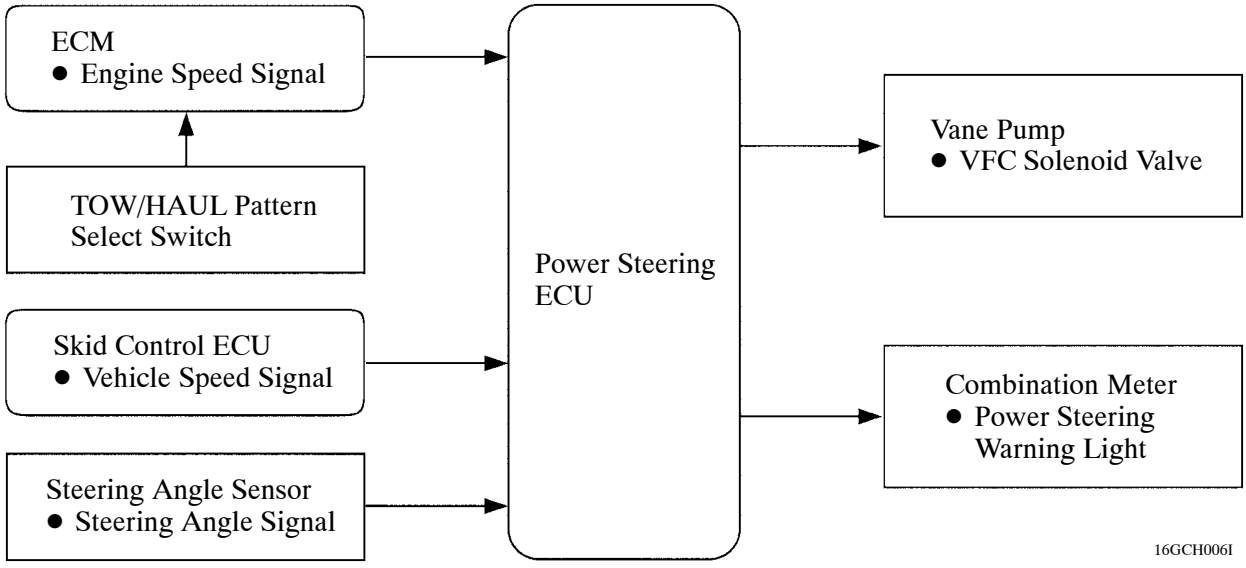
1. General

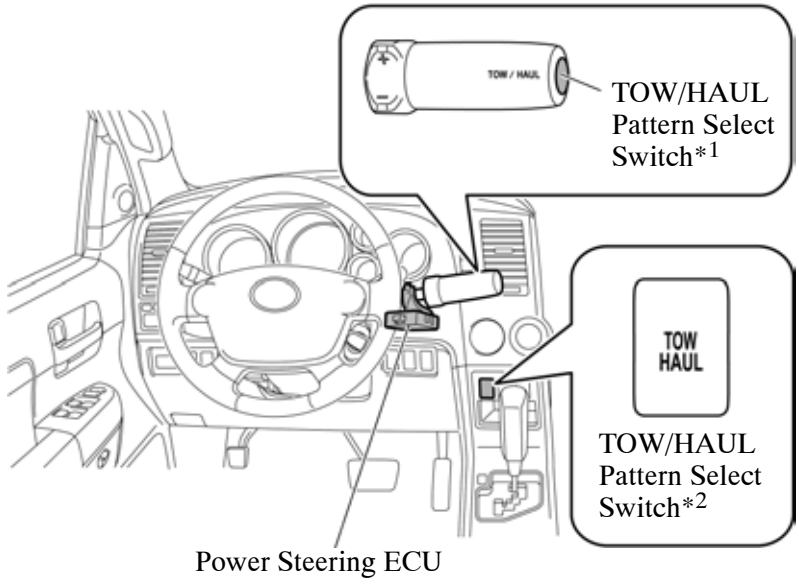
- Towing mode, which switches in accordance with the operation of the TOW/HAUL pattern select switch, is provided for the Variable Flow Control (VFC) power steering system.
- A diagnosis function is provided for the VFC power steering system. For details, refer to the ’11 Toyota Tundra Repair Manual.

2. VFC Power Steering System

When towing a trailer, a greater trailer load is applied to the rear side (than the front side), thus reducing steering force. In towing mode, reducing the assist flow rate ensures steering feel.

▶ Control Diagram ◀



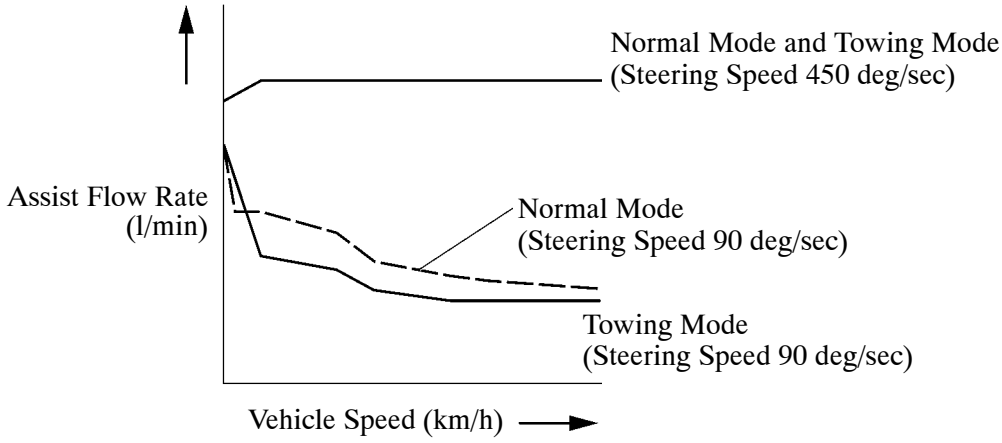


*1: Models with column shift
*2: Models with floor shift

Flow Rate Control

1) Assist Control

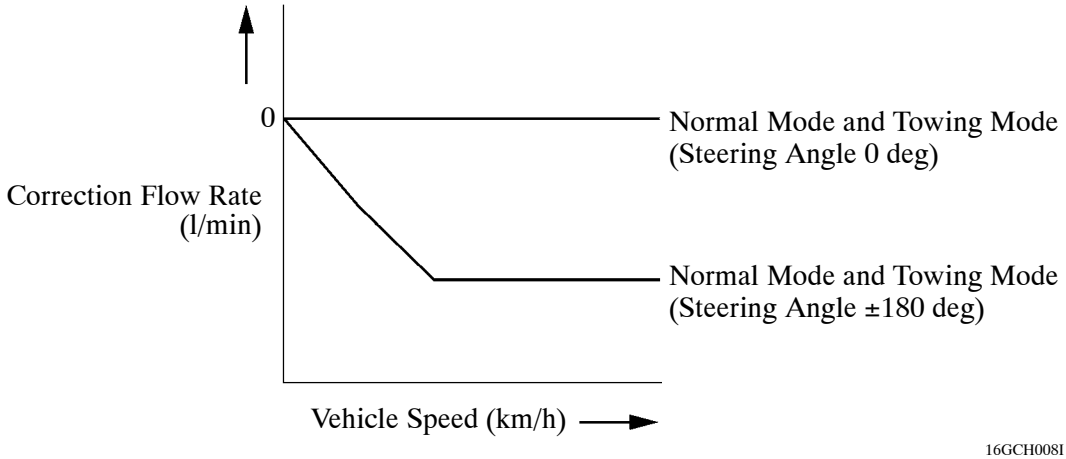
- In towing mode, when the steering speed is low, the assist flow rate is reduced further than when in normal mode, thus ensuring steering feel.
- In towing mode, an assist flow rate equivalent to that of normal mode is supplied when the steering speed is high.



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2) Steering Angle Correction

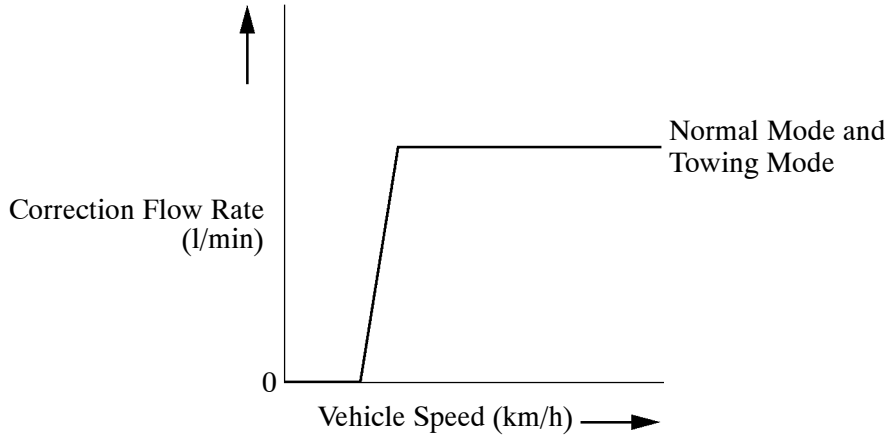
- Equivalent steering angle correction is performed in both towing mode and normal mode.
- Based on the steering angle and vehicle speed signal, this function corrects the flow rate in accordance with the driving conditions. Thus, an optimal steering feeling is ensured for every steering condition, such as when steering at standstill, cornering, or straightline driving.



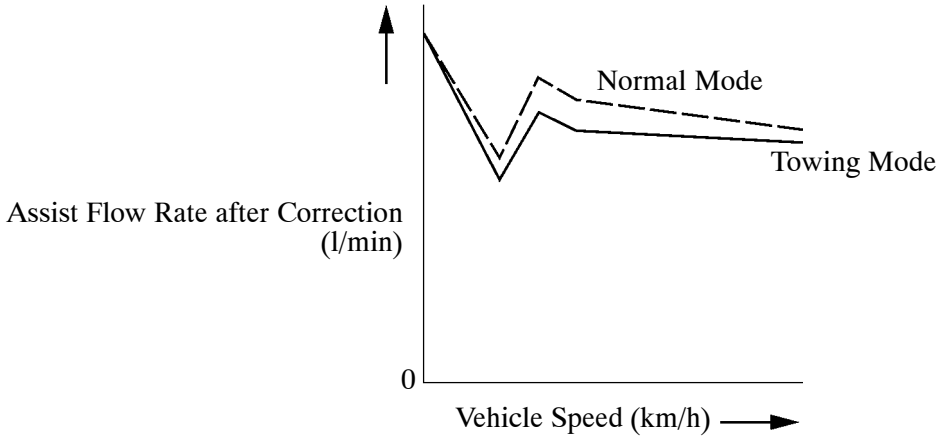
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3) Steering Return Correction

- The correction flow rate of the normal mode is similar to that of the towing mode.
- In towing mode, the assist flow rate is smaller than when in normal mode. As a result, the assist flow rate is reduced after correction, and optimal steering force and vehicle stability are ensured.



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4) Engine Speed Correction

Because a constant assist flow rate is provided regardless of the engine speed, the correction flow rate is reduced in towing mode.

