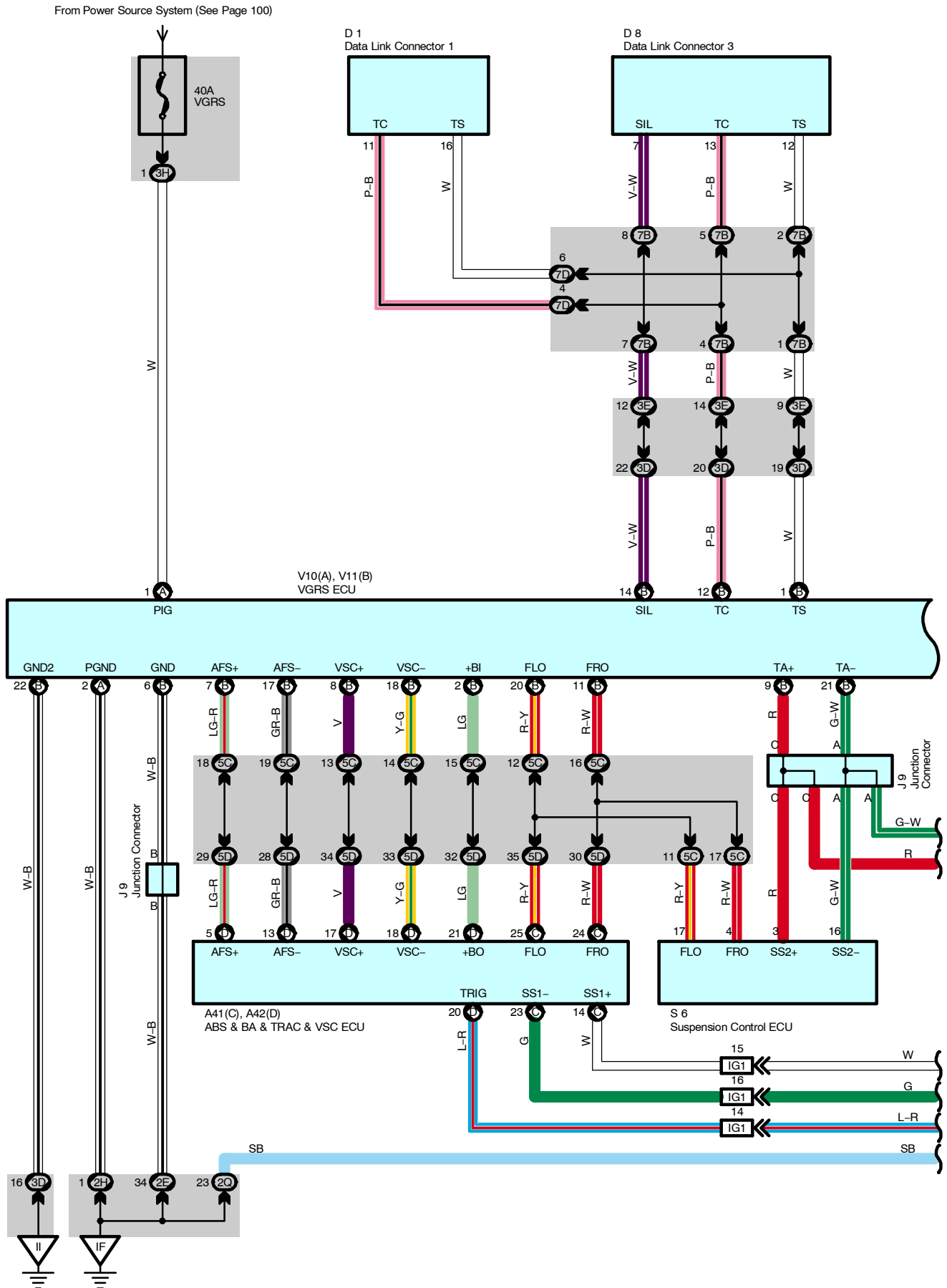
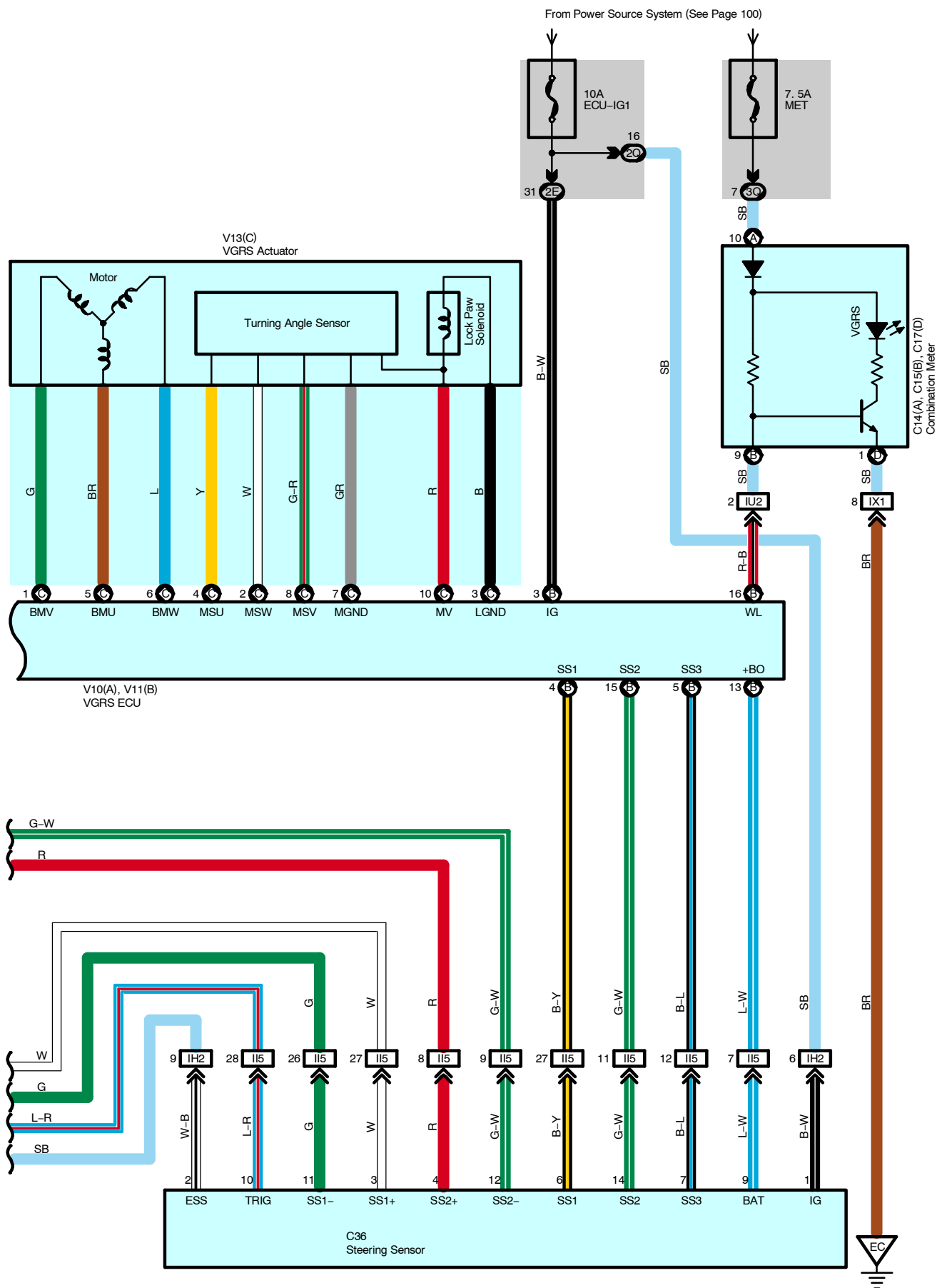






System Outline

In the VGRS system, the steering gear ratio can be changed at will. Thus, the VGRS ECU operates the VGRS actuator in order to constantly realize an optimal gear ratio in accordance with the driving conditions of the vehicle. Thus, it attains a high level of maneuverability and stability between the low- and the high-speed driving ranges.

This system is controlled by the VGRS ECU, which operates the VGRS actuator that is mounted on the steering intermediate shaft. The operating angle of the actuator is thus added to the steering angle of the intermediate shaft in order to vary the turning angle of the front wheels in accordance with the vehicle speed.

VGRS System Main Function

- * In the extremely low-speed range, which is used when the driver is attempting to park the vehicle, this system changes the steering gear into the smallest gear ratio in order to reduce the driver's steering angle.
- * In the low- to medium-speed range, which is used when driving on city streets or on a winding road, this system changes the steering gear ratio to an optimal level in accordance with the vehicle speed. As a result, the vehicle responds with more agility and handles more easily.
- * In the high-speed range, the steering gear ratio is set to the maximum level to prevent the vehicle from making over-sensitive movements in response to the driver's steering angle. Thus, this system ensures a stable vehicle response.
- * If a vehicle that is driven over a road surface with different friction coefficients brakes suddenly and causes the ABS to activate, the vehicle posture becomes disrupted, thus requiring the driver to operate the steering wheel. When this occurs, the steering gear ratio is rendered even smaller than that of the ordinary VGRS system in order to reduce the driver's steering angle.

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A41	C 70	C36	71	V10	A 73
A42	D 70	D1	68	V11	B 73
C14	A 71	D8	71	V13	C 73
C15	B 71	J9	72		
C17	D 71	S6	73		

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
2E	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2H		
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3D	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3E		
3H		
3Q	42	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)
5C	56	Dash Wire and J/B No.5 (Behind the Combination Meter)
5D	56	Engine Room No.2 Wire and J/B No.5 (Behind the Combination Meter)
7B	64	Dash Wire and J/B No.7 (Behind the Grove Box)
7D	64	Engine Room No.2 Wire and J/B No.7 (Behind the Grove Box)

□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IG1	82	Engine Room No.2 Wire and Dash Wire (Behind the Combination Meter)
IH2	82	Instrument Panel Integration Wire and Column Wire (Near the Ignition SW)
II5	82	Dash Wire and Column Wire (Near the Ignition SW)
IU2	84	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
IX1	86	Instrument Panel Integration Wire and Engine Wire (Behind the Glove Box)

▽ : Ground Points

Code	See Page	Ground Points Location
EC	78	Rear Bank of Right Cylinder Head
IF	80	Set Bolt of Cowl Side J/B LH
II	80	Set Bolt of Cowl Side J/B RH

