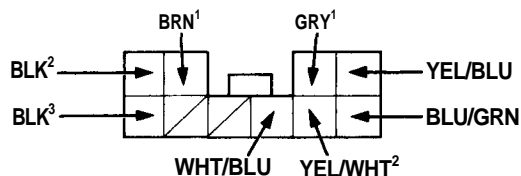




## DPMS Control Unit Input/Output Signals

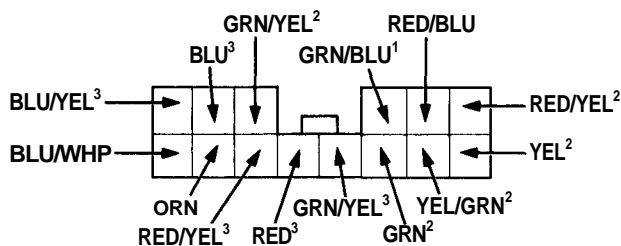
Use this chart for a quick check (with all connectors connected) of the input signals to and the output signals from the driving position memory system (DPMS) control unit.

DPMS control unit 10-P connector (C293)



View from wire side

DPMS control unit 14-p connector (C294)



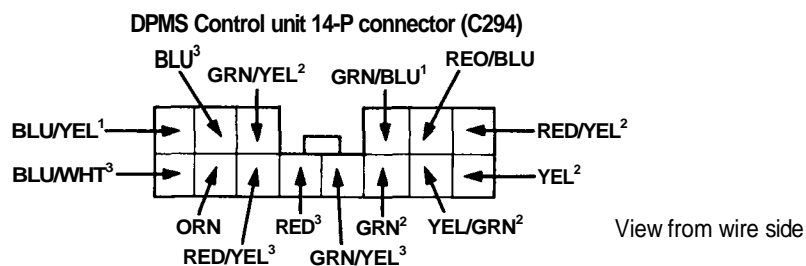
View from wire side

Connector	Wire	Signal	Voltage should be	Symptom if voltage is not as specified
10-P	YEL/BLU	Battery power input	10-14 V	All functions don't work at all.
10-P	GRY¹	Indicator 1 output	Indicator ON: 2 V or less Indicator OFF: 10 V or more	Indicator doesn't go on (open). Indicator doesn't go off (short).
10-P	BRN¹	Indicator 2 output	Indicator ON: 2 V or less Indicator OFF: 10 V or more	Indicator doesn't go on (open). Indicator doesn't go off (short).
10-P	BLK²	DPMS control unit ground (G251)	No voltage	All functions don't work at all.
10-P	BLU/GRN	Input from steering column retract switch	Switch ON: 1 V or less Switch OFF: 4 V or more	Column doesn't retract (open). Column neither extends nor retracts (short).
10-P	YEL/WHT²	Power output to steering column control unit relays	10-14 V	Steering column doesn't move at all.
10-P	WHT/BLU	Power output to power seat control unit relays	10-14 V	Power seat doesn't move at all.
10-P	BLK³	DPMS control unit ground (G252)	No voltage	All functions don't work at all.
14-P	RED/YEL²	Output to steering column tilt-up relay	Relay ON: 1 V or less Relay OFF: 10 V or more	Column doesn't tilt up (open). Column neither tilts up nor down (short).
14-P	RED/BLU	Output to steering column tilt-down relay	Relay ON: 1 V or less Relay OFF: 10 V or more	Column doesn't tilt down (open). Column neither tilts up nor down (short).
14-P	GRN/BLU¹	Output to steering column retract relay	Relay ON: 1 V or less Relay OFF: 10 V or more	Column doesn't retract (open). Column neither extends nor retracts (short).
14-P	GRN/YEL²	Output to steering column extend relay	Relay ON: 1 V or less Relay OFF: 10 V or more	Column doesn't extend (open). Column neither retracts nor extends (short).

(cont'd)

# Troubleshooting

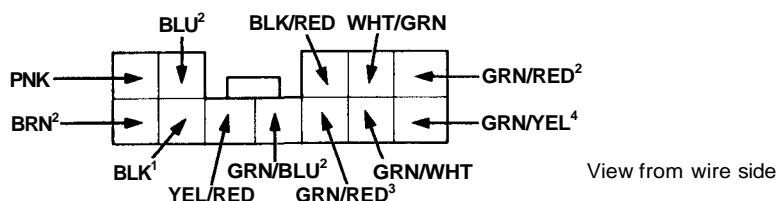
## DPMS Control Unit Input/Output Signals (cont'd)



Connector	Wire	Signal	Voltage should be	Symptom If voltage is not as specified
14-P	BLU <sup>3</sup>	Output to power seat slide-forward relay	Relay ON: 1 V or less Relay OFF: 10 V or more	Seat doesn't slide forward (open). Seat slides neither forward nor back (short).
14-P	BLU/YEL <sup>3</sup>	Output to power seat slide-back relay	Relay ON: 1 V or less Relay OFF: 10 V or more	Seat doesn't slide back (open). Seat slides neither back nor forward (short).
14-P	YEL <sup>2</sup>	Output to power seat recline-forward relay	Relay ON: 1 V or less Relay OFF: 10 V or more	Seat doesn't recline forward (open). Seat reclines neither forward nor back (short).
14-P	YEL/GRN <sup>2</sup>	Output to power seat recline-back relay	Relay ON: 1 V or less Relay OFF: 10 V or more	Seat doesn't recline back (open). Seat reclines neither forward nor back (short).
14-P	GRN <sup>2</sup>	Output to power seat front-up relay	Relay ON: 1 V or less Relay OFF: 10 V or more	Seat front doesn't move up (open). Seat front moves neither up nor down (short).
14-P	GRN/YEL <sup>3</sup>	Output to power seat front-down relay	Relay ON: 1 V or less Relay OFF: 10 V or more	Seat front doesn't move down (open). Seat front moves neither down nor up (short).
14-P	RED <sup>3</sup>	Output to power seat rear-up relay	Relay ON: 1 V or less Relay OFF: 10 V or more	Seat rear doesn't move up (open). Seat rear moves neither up nor down (short).
14-P	RED/YEL <sup>3</sup>	Output to power seat rear-down relay	Relay ON: 1 V or less Relay OFF: 10 V or more	Seat rear doesn't move down (open). Seat rear moves neither down nor up (short).
14-P	ORN	Output to buzzer	Buzzer sounds: 10 V or more Buzzer is OFF: 1 V or less	Buzzer doesn't sound.
14-P	BLU/WHT <sup>3</sup>	Steering column extend switch input	Switch ON: 1 V or less Switch OFF: 4 V or more	Column doesn't extend (open). Column neither retracts nor extends (short).



DPMS control unit 12-P connector (C295)

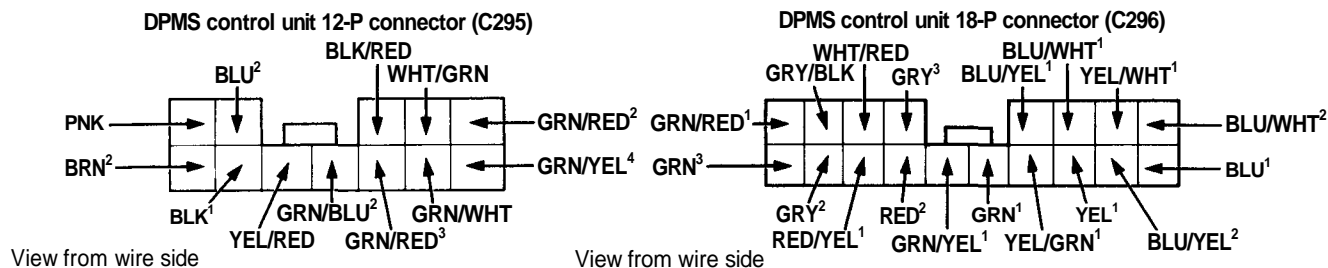


Connector	Wire	Signal	Voltage should be	Symptom if voltage is not as specified
12-P	CRN/RED²	AUTO switch input	Switch ON: 1 V or less Switch OFF: 4 V or more	Steering column doesn't tilt up and retract when the ignition key is pulled out (open). Steering column tilts up and retracts when the ignition switch is turned OFF (short).
12-P	WHT/GRN (M/T)	Parking brake switch input	Switch ON: 1 V or less (Parking brake lever up) Switch OFF: 4 V or more (Parking brake lever down)	Steering column doesn't tilt up and retract when the ignition key is pulled out (open). Steering column tilts up and retracts when the parking brake switch is OFF (short).
12-P	WHT/GRN (A/T)	A/T gear position switch input	1 V or less with shift lever in <b>P</b> 4 V or more with shift lever in any other position than <b>P</b>	Steering column doesn't tilt up and retract when the ignition key is pulled out (open). Steering column tilts up and retracts when the shift lever is not in <b>P</b> (short).
12-P	BLK/RED	Ignition switch input	Switch ON: 10 V or more Switch OFF: 1 V or less	Position can't be stored (open). Position can be stored (short).
12-P	BLU²	Tilt sensor input	As column tilts up, voltage changes from 0 to 5 V. As column tilts down, voltage changes from 5 V to 0.	Column can be manually tilted only for one second and doesn't tilt automatically.
12-P	PNK	Extend-retract sensor input	As column retracts, voltage changes from 0 to 5 V. As column extends, voltage changes from 5 V to 0.	Column can be manually extended or retracted for only one second and doesn't extend/retract automatically.
12-P	GRN/YEL⁴	Seat slide sensor input	As seat slides, voltages pulses from 1 V or less to 4 V or more.	Seat can be manually slid only for one second and doesn't slide automatically.
12-P	GRN/WHT	Seat recline sensor input	As seat reclines, voltage pulses from 1 V or less to 4 V or more.	Seat can be manually reclined only for one second and doesn't recline automatically.
12-P	GRN/RED³	Seat front up-down sensor input	As seat front moves up or down, voltage pulses from 1 V or less to 4 V or more.	Seat front can be manually moved up or down only for one second and doesn't move up/down automatically.

(cont'd)

# Troubleshooting

## DPMS Control Unit Input/Output Signals (cont'd)



Connector	Wire	Signal	Voltage should be	Symptom if voltage is not as specified
12-P	GRN/BLU <sup>2</sup>	Seat rear up-down sensor input	As seat rear moves up or down, voltage pulses from 1 V or less to 4 V or more.	Seat rear can be manually moved up/down for only one second and doesn't move up/down automatically.
12-P	YEL/RED	Vehicle speed sensor (VSS) input	When the car runs, voltage pulses from 1 V or less to 5 V or more.	Adjustment mode 3 (see page 23-337) works when the car runs with the driver's door open.
12-P	BLK <sup>1</sup>	Seat sensor ground	1 V or less	Seat can be manually adjusted for only one second and doesn't adjust automatically (open).
12-P	BRN <sup>2</sup>	Steering column sensor ground	1 V or less	Steering column can be manually adjusted for only one second and doesn't adjust automatically (open).
18-P	BLU/WHT <sup>2</sup>	Ignition key switch input	Key inserted: 1 V or less Key removed: 10 V or more	Steering column doesn't tilt up and retract when the ignition key is pulled out.
18-P	YEL/WHT	MEMO switch input	Switch ON: 1 V or less Switch OFF: 4 V or more	Position can't be stored; automatic adjustment can't be stopped by pushing the MEMO button.
18-P	BLU/WHT <sup>1</sup>	Position switch 1 input	Switch ON: 1 V or less Switch OFF: 4 V or more	Position 1 can't be retrieved; automatic adjustment can't be stopped by pushing position button 1
18-P	BLU/YEL <sup>1</sup>	Position switch 2 input	Switch ON: 1 V or less Switch OFF: 4 V or more	Position 2 can't be retrieved; automatic adjustment can't be stopped by pushing position button 2
18-P	GRY <sup>3</sup>	Constant voltage output to steering column sensors	About 5 V	Steering column can be manually adjusted only for one second and doesn't adjust automatically
18-P	WHT/RED	Tilt-up switch input	Switch ON: 1 V or less Switch OFF: 4 V or more	Column doesn't tilt up (open). Column tilts neither up nor down (short).



Connector	Wire	Signal	Voltage should be	Symptom if voltage is not as specified
18-P	GRY/BLK	Tilt-down switch input	Switch ON: 1 V or less Switch OFF: 4 V or more	Column doesn't tilt down (open). Column tilts neither down nor up (short).
18-P	GRN/RED <sup>1</sup>	Driver's door switch input	Door open: 1 V or less Door closed: 10 V or more	Adjustment mode 4 (see page 23-337) works with the driver's door open (open). Adjustment mode 3 (see page 23-337) works with the car running (short).
18-P	BLU <sup>1</sup>	Seat slide-forward switch input	Switch ON: 1 V or less Switch OFF: 4 V or more	Seat doesn't slide forward (open). Seat slides neither forward nor back (short).
18-P	BLU/YEL <sup>2</sup>	Seat slide-back switch input	Switch ON: 1 V or less Switch OFF: 4 V or more	Seat doesn't slide back (open). Seat slides neither back nor forward (short).
18-P	YEL <sup>1</sup>	Seat recline-forward switch input	Switch ON: 1 V or less Switch OFF: 4 V or more	Seat doesn't recline forward (open). Seat reclines neither forward nor back (short).
18-P	YEL/GRN <sup>1</sup>	Seat recline-back switch input	Switch ON: 1 V or less Switch OFF: 4 V or more	Seat doesn't recline back (open). Seat reclines neither back nor forward (short).
18-P	GRN <sup>1</sup>	Seat front-up switch input	Switch ON: 1 V or less Switch OFF: 4 V or more	Seat front doesn't move up (open). Seat front moves neither up nor down (short).
18-P	GRN/YEL <sup>1</sup>	Seat front-down switch input	Switch ON: 1 V or less Switch OFF: 4 V or more	Seat front doesn't move down (open). Seat front moves neither down nor up (short).
18-P	RED <sup>2</sup>	Seat rear-up switch input	Switch ON: 1 V or less Switch OFF: 4 V or more	Seat rear doesn't move up (open). Seat rear moves neither up nor down (short).
18-P	RED/YEL <sup>1</sup>	Seat rear-down switch input	Switch ON: 1 V or less Switch OFF: 4 V or more	Seat rear doesn't move down (open). Seat rear moves neither down nor up (short).
18-P	GRY <sup>2</sup>	Common input from all seat, steering column, and position switches, and from the MEMO switch	Switch ON: 1 V or less Switch OFF: 4 V or more	Switches, adjustment modes 3 and 4 (see page 23-337) don't work, and positions can't be stored.
18-P	GRN <sup>3</sup>	Seat reclining limit switch input	Within 20° angle from most forward recline position: 1 V or less Beyond 25° angle from most forward recline position: 4 V or more	Seat doesn't stop at the reclining limit in adjustment modes 3 and 4 (see page 23-337).