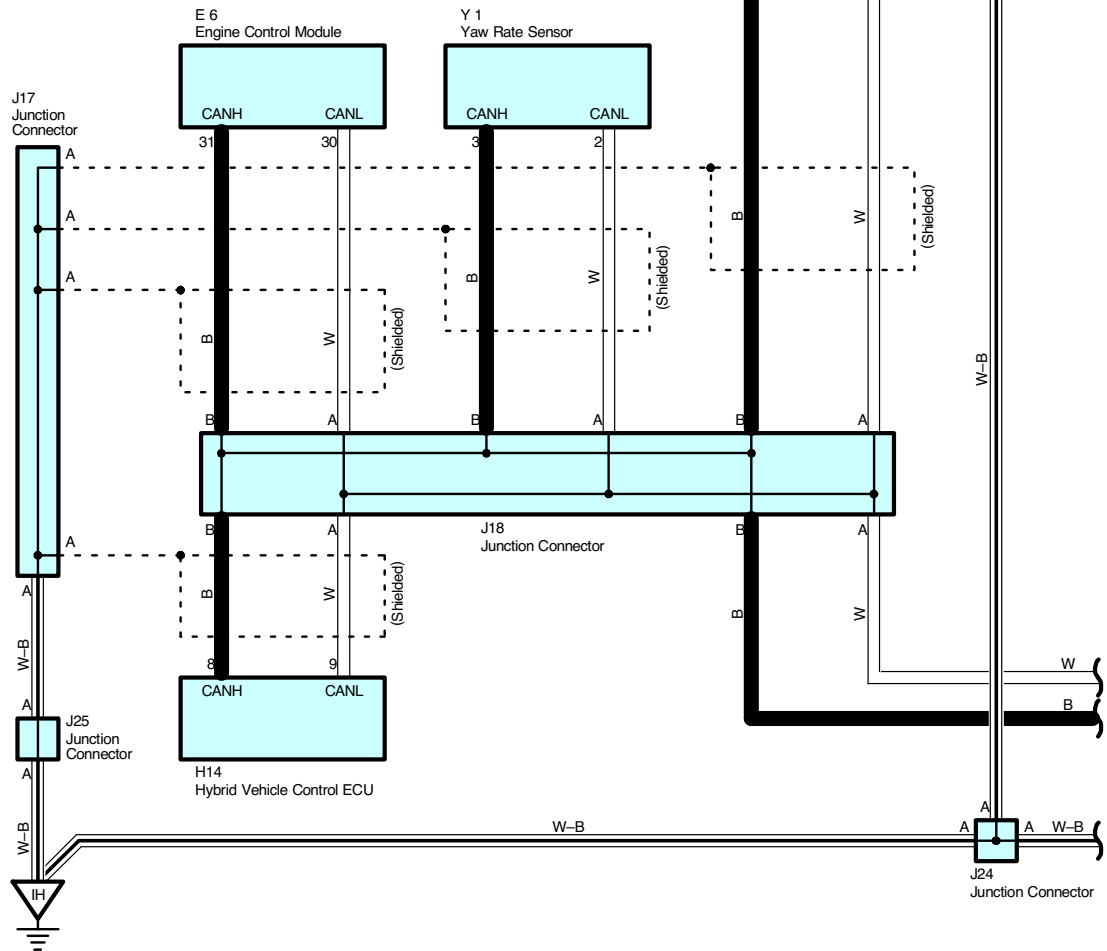
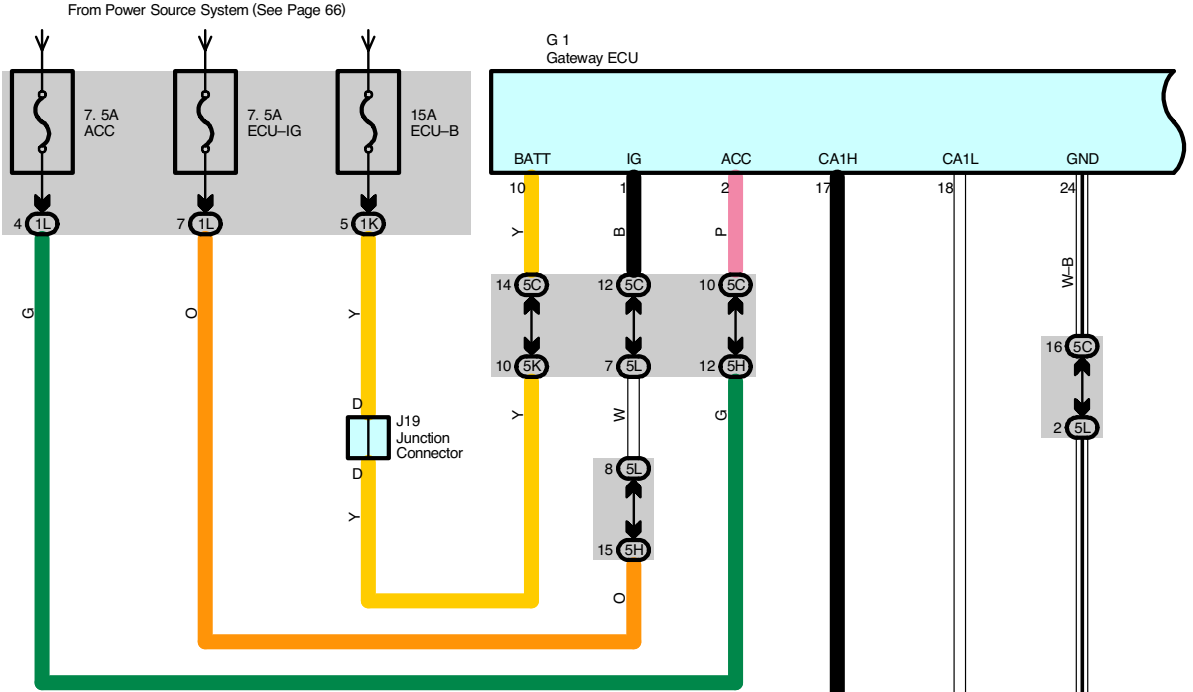
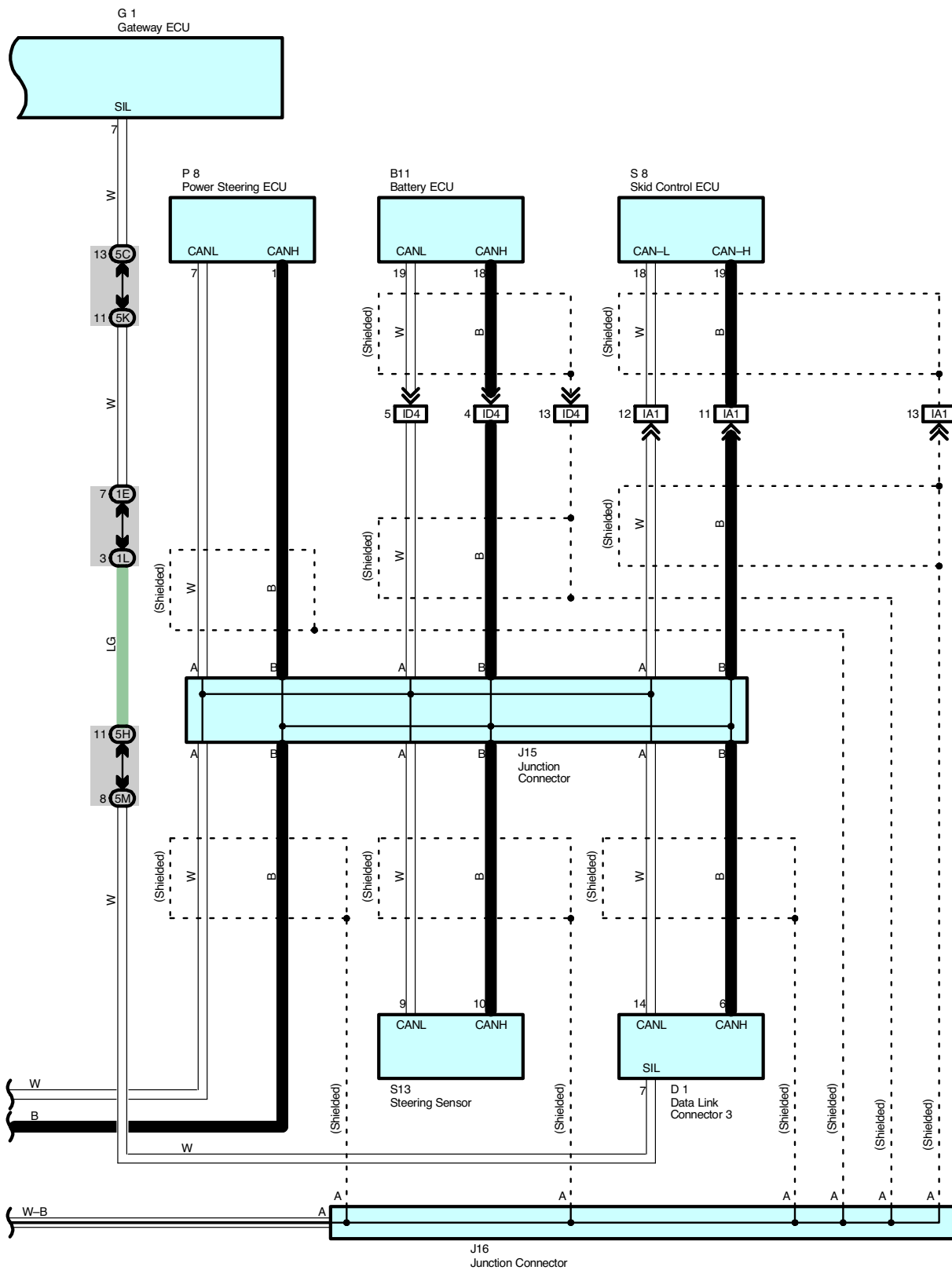


# Multiplex Communication System – CAN Bus





# Multiplex Communication System – CAN Bus

## System Outline

CAN has two lines as a pair which make communication with operating voltage. CAN has excellent data speed and error detecting capacity. It consists of vehicle control systems such as hybrid vehicle control ECU, engine control module, yaw rate sensor, battery ECU, power steering ECU, skid control ECU, power steering torque sensor, data link connector 3 and gateway ECU. Gateway ECU has communication circuit to correspond with different types of communication data. Different types of communication data can be shared among communication parts after it goes through gateway ECU.

This system is working for the following systems:

- \* Air Conditioning
- \* Audio System
- \* Back-Up Light
- \* Brake Control System
- \* Combination Meter
- \* Cruise Control
- \* Engine Control
- \* EPS
- \* Headlight
- \* Hybrid Vehicle Immobilizer System
- \* Multi-Display
- \* Push Button Start System
- \* Shift Control System
- \* Smart Entry System
- \* Theft Deterrent
- \* TOYOTA Hybrid System

## Service Hints

### G1 Gateway ECU

- 10-Ground : Always approx. 12 volts
- 1-Ground : Approx. 12 volts with the power SW at IG ON position
- 2-Ground : Approx. 12 volts with the power SW at ACC ON or IG ON position
- 24-Ground : Always continuity

## ○ : Parts Location

| Code | See Page           | Code | See Page           | Code | See Page           |
|------|--------------------|------|--------------------|------|--------------------|
| B11  | <a href="#">50</a> | J16  | <a href="#">48</a> | P8   | <a href="#">49</a> |
| D1   | <a href="#">47</a> | J17  | <a href="#">48</a> | S8   | <a href="#">49</a> |
| E6   | <a href="#">47</a> | J18  | <a href="#">48</a> | S13  | <a href="#">49</a> |
| G1   | <a href="#">47</a> | J19  | <a href="#">48</a> | Y1   | <a href="#">49</a> |
| H14  | <a href="#">47</a> | J24  | <a href="#">48</a> |      |                    |
| J15  | <a href="#">48</a> | J25  | <a href="#">48</a> |      |                    |

## ○ : Junction Block and Wire Harness Connector

| Code | See Page           | Junction Block and Wire Harness (Connector Location)                        |
|------|--------------------|-----------------------------------------------------------------------------|
| 1E   | <a href="#">28</a> | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)              |
| 1K   |                    |                                                                             |
| 1L   |                    |                                                                             |
| 5C   | <a href="#">40</a> | Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH) |
| 5H   |                    |                                                                             |
| 5K   |                    |                                                                             |
| 5L   |                    |                                                                             |
| 5M   |                    |                                                                             |

## □ : Connector Joining Wire Harness and Wire Harness

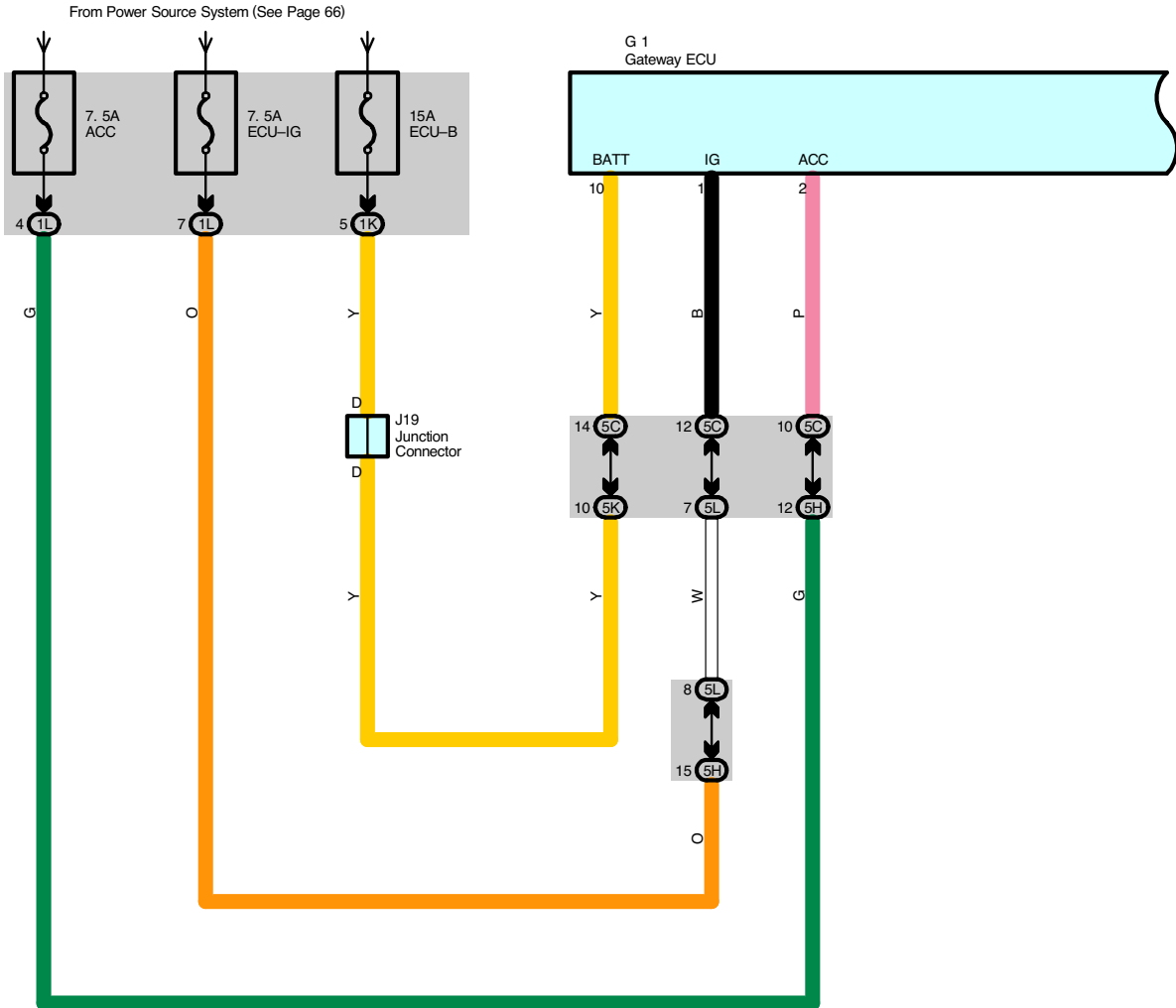
| Code | See Page           | Joining Wire Harness and Wire Harness (Connector Location)                            |
|------|--------------------|---------------------------------------------------------------------------------------|
| IA1  | <a href="#">56</a> | Engine Room Main Wire and Instrument Panel Wire (Upper Parts of Front Body Pillar LH) |
| ID4  | <a href="#">56</a> | Instrument Panel Wire and Floor Wire (Left Kick Panel)                                |

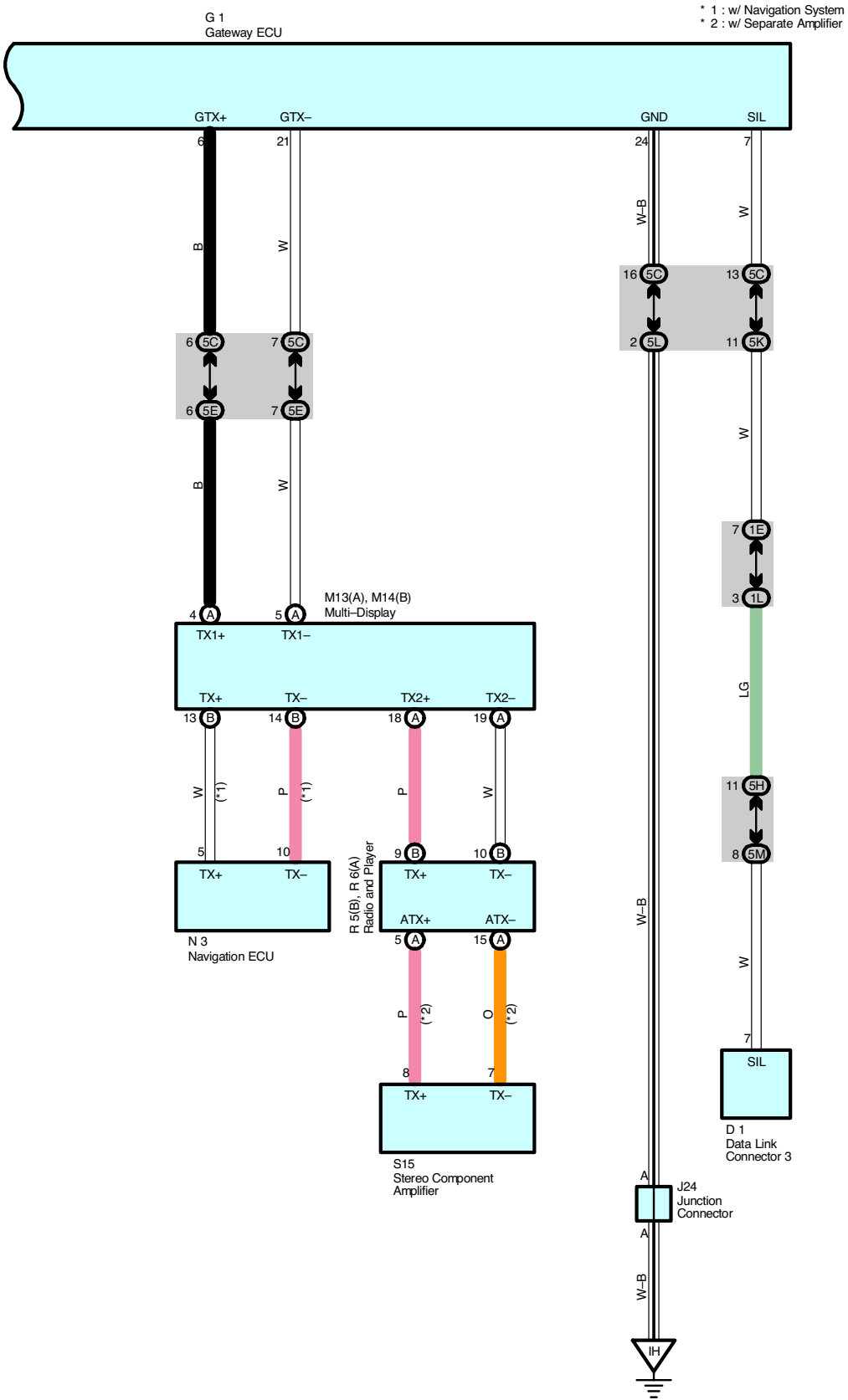


**: Ground Points**

| Code | See Page           | Ground Points Location |
|------|--------------------|------------------------|
| IH   | <a href="#">56</a> | Cowl Side Panel LH     |

# Multiplex Communication System – AVC-LAN Bus





# Multiplex Communication System – AVC–LAN Bus

## System Outline

AVC–LAN consists of audio visual systems such as multi–display, navigation ECU\*, radio and player, stereo component amplifier\* and gateway ECU. Gateway ECU has communication circuit to correspond with different types of communication data. Different types of communication data can be shared among communication parts after it goes through gateway ECU.

\* Optional equipment

This system is working for the following systems:

- \* Air Conditioning
- \* Audio System
- \* Brake Control System
- \* Combination Meter
- \* Engine Control
- \* EPS
- \* Hybrid Vehicle Immobilizer System
- \* Mirror Heater
- \* Multi–Display
- \* Push Button Start System
- \* Rear Wiper and Washer
- \* Shift Control System
- \* TOYOTA Hybrid System

## Service Hints

### G1 Gateway ECU

10–Ground : Always approx. 12 volts

1–Ground : Approx. 12 volts with the power SW at IG ON position

2–Ground : Approx. 12 volts with the power SW at ACC ON or IG ON position

24–Ground : Always continuity

### ○ : Parts Location

| Code | See Page | Code  | See Page | Code | See Page |
|------|----------|-------|----------|------|----------|
| D1   | 47       | M13 A | 48       | R6 B | 49       |
| G1   | 47       | M14 B | 48       | S15  | 49       |
| J19  | 48       | N3    | 48       |      |          |
| J24  | 48       | R5 A  | 49       |      |          |

### ○ : Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)                        |
|------|----------|-----------------------------------------------------------------------------|
| 1E   | 28       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)              |
| 1K   |          |                                                                             |
| 1L   |          |                                                                             |
| 5C   | 40       | Instrument Panel Wire and Center Connector No.2 (Instrument Panel Brace RH) |
| 5E   |          |                                                                             |
| 5H   |          |                                                                             |
| 5K   |          |                                                                             |
| 5L   |          |                                                                             |
| 5M   |          |                                                                             |

### ▽ : Ground Points

| Code | See Page | Ground Points Location |
|------|----------|------------------------|
| IH   | 56       | Cowl Side Panel LH     |