SYSTEM OUTLINE

MULTIPLEX COMMUNICATION SYSTEM

The system is comprised of the communication modes of the body ECU, engine ECU (M/T) or engine and ECT ECU(A/T), double locking ECU, theft deterrent ECU, combination meter and A/C control assembly. The body electrical systems are controlled by a serial communication in which each ECU is linked to another via a single communication line. This system is also equipped with a self–diagnosis function.

The table below shows the systems under the control of the MPX communication system and related ECUs (Communication nodes).

	Body ECU	Engine ECU (M/T) or Engine and ECT ECU (A/T)	Combination Meter	A/C Control Assembly	Theft Deterrent	Double Locking ECU	Power Window Master SW	Wireless Door Lock ECU
Door Lock Control	1	–	–	–	–	2	2	2
Wireless Door Lock Control	2	–	–	–	2	2	1	1
Light Auto Turn Off	–	–	–	–	1	–	–	–
Automatic Light Control	–	–	–	–	1	–	–	–
Theft Deterrent	2	–	–	–	1	–	–	–
Illuminated Entry	1	–	–	–	–	–	–	–
Light Reminder	1	–	2	–	–	–	–	–
Luggage Compartment Door Opener	1	–	–	–	–	–	–	–
Fog Light	–	–	–	–	1	–	–	–
C–BEST System	1	–	2	2	2	–	–	–
Diagnosis System	1	–	2	2	2	–	–	–
Seat Belt Warning	1	–	2	–	–	–	–	–
ECT Signal	–	1	2	2	–	–	–	–
A/C Control	–	2	–	1	–	–	–	–
Multi Information Display	2	2	1	2	–	–	–	–
Double Locking	–	–	–	–	–	1	–	–

1 : Master control 2 : Sub control

1. COMMUNICATION OUTLINE

Communication is implemented among the combination meter, power window master SW, A/C control assembly, body, double locking ECU, theft deterrent, engine ECU (M/T) or engine and ECT ECUs (A/T).
Upon receiving signals from applicable switches such as the door lock control switch or door courtesy light switch, each ECU determines the conditions of the switches as well as of the doors, and after converting this information into digital signals, outputs them to other ECUs via serial data communication. The ECU that receives these digital signals determines the conditions of the switches and doors so that it can implement various controls such as to activate a door lock motor.
However, if there are no changes in the input signals because no doors were opened and no switches were used within 30 seconds, the body ECU interrupts the communication to save electricity. Following this interruption, any changes in the input signals will cause the communication to resume.
For details please refer to the new car features and repair manuals.

SERVICE HINTS

B6 (A), B7 (B) BODY ECU

3–GROUND : Approx. **12** volts with ignition SW at **ON** or **ST** position
1–GROUND : Always approx. **12** volts
2–GROUND : Always approx. **12** volts
12–GROUND : Always continuity
4–GROUND : Approx. **12** volts with ignition SW at **ACC** or **ON** position
(A)19–GROUND : Always continuity

: PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A14 A	106 (RHD)	D13 B	108 (RHD)	L4	108 (RHD)
A15 B	106 (RHD)	D15 A	108 (RHD)	L6	108 (RHD)
B6 A	106 (RHD)	D15 B	108 (RHD)	L7	108 (RHD)
B7 B	106 (RHD)	D16 A	108 (RHD)	M3 A	108 (RHD)
B9	108 (RHD)	D16 B	108 (RHD)	P3 B	109 (RHD)
B9	110 (RHD)	E2 A	104 (RHD)	P4	109 (RHD)
B10	108 (RHD)	E3 B	104 (RHD)	P6	109 (RHD)
C10	106 (RHD)	F15	108 (RHD)	P7	109 (RHD)
C14 A	106 (RHD)	F16	108 (RHD)	P8	109 (RHD)
C14 B	106 (RHD)	I14	107 (RHD)	P9	109 (RHD)
D2	106 (RHD)	I17	108 (RHD)	P10	109 (RHD)
D4	106 (RHD)	J5	107 (RHD)	P11	109 (RHD)
D5	108 (RHD)	J8	107 (RHD)	P12	109 (RHD)
D6	108 (RHD)	J9	107 (RHD)	T4 A	107 (RHD)
D7	108 (RHD)	J10	107 (RHD)	T5 B	107 (RHD)
D8	108 (RHD)	J11	107 (RHD)	U1	107 (RHD)
D9	108 (RHD)	J12	108 (RHD)	V4	109 (RHD)
D10	108 (RHD)	J13	108 (RHD)	V5	109 (RHD)
D12 A	108 (RHD)	J14	108 (RHD)	W4	109 (RHD)
D12 B	108 (RHD)	J16	108 (RHD)		
D13 A	108 (RHD)	J17	108 (RHD)		

: RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
1	81 (RHD)	Engine Room No.1 R/B (Engine Compartment Left)

MULTIPLEX COMMUNICATION SYSTEM (RHD)

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	88 (RHD)	Engine Room Main Wire and Driver Side J/B (Right Kick Panel)
1B		
1C		
1E	88 (RHD)	Instrument Panel Wire and Driver Side J/B (Right Kick Panel)
1F		
1H		
1I		
1K	88 (RHD)	Front Door RH Wire and Driver Side J/B (Right Kick Panel)
1L	88 (RHD)	Floor Wire and Driver Side J/B (Right Kick Panel)
1M	88 (RHD)	Roof Wire and Driver Side J/B (Right Kick Panel)
2A	90 (RHD)	Instrument Panel Wire and Passenger Side J/B (Left Kick Panel)
2B	90 (RHD)	Front Door LH Wire and Passenger Side J/B (Left Kick Panel)
2E	90 (RHD)	Instrument Panel Wire and Passenger Side J/B (Left Kick Panel)
2F		
2G	90 (RHD)	Engine Room Main Wire and Passenger Side J/B (Left Kick Panel)
2H	90 (RHD)	Instrument Panel Wire and Passenger Side J/B (Left Kick Panel)
2I	90 (RHD)	Floor No.2 Wire and Passenger Side J/B (Left Kick Panel)
2L	90 (RHD)	Instrument Panel Wire and Passenger Side J/B (Left Kick Panel)
2O	90 (RHD)	Engine Room Main Wire and Passenger Side J/B (Left Kick Panel)

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA3	124 (RHD)	Instrument Panel Wire and Engine Room Main Wire (Near the Passenger Side J/B)
IB1	124 (RHD)	Instrument Panel Wire and Floor No.2 Wire (Near the Passenger Side J/B)
IB2		
IC1	124 (RHD)	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IH3	126 (RHD)	Instrument Panel Wire and Floor Wire (Near the Driver Side J/B)
II1	126 (RHD)	Front Door RH Wire and Instrument Panel Wire (Left Kick Panel)
BA1	128 (RHD)	Rear Door No.2 Wire and Floor No.2 Wire (Left Center Pillar)
BB1	128 (RHD)	Rear Door No.1 Wire and Floor Wire (Right Center Pillar)
BC1	128 (RHD)	Floor No.2 Wire and Floor Wire (Under the Right Rear Cushion)
BE1	130 (RHD)	Floor Wire and Front Seat RH Wire (Under the Driver's Seat)

: GROUND POINTS

Code	See Page	Ground Points Location
EC	122 (RHD)	Left Fender Apron
ID	124 (RHD)	Cowl Side Panel LH
IF	124 (RHD)	Cowl Side Panel RH
IH	124 (RHD)	Front Floor Panel Center RH
BJ	128 (RHD)	Front Floor Panel LH
BK	128 (RHD)	Left Quarter Panel LH
BL	128 (RHD)	Front Floor Panel RH
BM	128 (RHD)	Roof Panel

: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B2	128 (RHD)	Roof Wire			