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), power window master SW, 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	Double Door Lock ECU	Power Window Master SW	Wireless Door Lock ECU
Door Lock Control	1	–	–	–	2	2	2
Wireless Door Lock	2	–	–	–	2	1	1
Illuminated Entry	1	–	–	–	–	–	–
Light Reminder	1	–	2	–	–	–	–
Luggage Compartment Door Opener	1	–	–	–	–	–	–
C–BEST System	1	–	2	2	–	–	–
Diagonosis System	1	–	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 Door Lock	–	–	–	–	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, 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	98 (LHD)	D14		100 (LHD)	L6		100 (LHD)
A15	B	98 (LHD)	D15		100 (LHD)	L7		100 (LHD)
B6	A	98 (LHD)	D16		100 (LHD)	M3	A	100 (LHD)
B7	B	98 (LHD)	E2	A	96 (LHD)	P3	B	101 (LHD)
B8		100 (LHD)	E3	B	96 (LHD)	P5		101 (LHD)
		102 (LHD)	F15		100 (LHD)	P6		101 (LHD)
B11		100 (LHD)	F16		100 (LHD)	P7		101 (LHD)
C10		98 (LHD)	I14		99 (LHD)	P8		101 (LHD)
C14		98 (LHD)	I16		100 (LHD)	P9		101 (LHD)
D1		98 (LHD)	J5		99 (LHD)	P10		101 (LHD)
D4		98 (LHD)	J8		99 (LHD)	P11		101 (LHD)
D5		100 (LHD)	J9		99 (LHD)	P12		101 (LHD)
D6		100 (LHD)	J12		100 (LHD)	U1		99 (LHD)
D7		100 (LHD)	J13		100 (LHD)	V4		101 (LHD)
D8		100 (LHD)	J14		100 (LHD)	V5		101 (LHD)
D9		100 (LHD)	J16		100 (LHD)	W4		101 (LHD)
D10		100 (LHD)	J17		100 (LHD)			
D11		100 (LHD)	L4		100 (LHD)			

: RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
1	80 (LHD)	Engine Room No.1 R/B (Engine Compartment Right)

MULTIPLEX COMMUNICATION SYSTEM (LHD)

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	82 (LHD)	Instrument Panel Wire and Driver Side J/B (Left Kick Panel)
1B	82 (LHD)	Front Door LH Wire and Driver Side J/B (Left Kick Panel)
1E	82 (LHD)	Instrument Panel Wire and Driver Side J/B (Left Kick Panel)
1F		
1G	82 (LHD)	Engine Room Main Wire and Driver Side J/B (Left Kick Panel)
1H	82 (LHD)	Instrument Panel Wire and Driver Side J/B (Left Kick Panel)
1I	82 (LHD)	Floor No.2 Wire and Driver Side J/B (Left Kick Panel)
1L	82 (LHD)	Instrument Panel Wire and Driver Side J/B (Left Kick Panel)
1N	82 (LHD)	Roof Wire and Driver Side J/B (Left Kick Panel)
1O	82 (LHD)	Engine Room Main Wire and Driver Side J/B (Left Kick Panel)
2B	84 (LHD)	Engine Room Main Wire and Passenger Side J/B (Right Kick Panel)
2C		
2E	84 (LHD)	Instrument Panel Wire and Passenger Side J/B (Right Kick Panel)
2G		
2H		
2I		
2K	84 (LHD)	Front Door RH Wire and Passenger Side J/B (Right Kick Panel)
2L	84 (LHD)	Floor Wire and Passenger Side J/B (Right Kick Panel)

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA3	114 (LHD)	Instrument Panel Wire and Engine Room Main Wire (Near the Driver Side J/B)
IB1	114 (LHD)	Instrument Panel Wire and Floor No.2 Wire (Near the Driver Side J/B)
IB2		
IC1	114 (LHD)	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IH3	116 (LHD)	Instrument Panel Wire and Floor Wire (Near the Passenger Side J/B)
II1	116 (LHD)	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)
BA1	118 (LHD)	Rear Door No.2 Wire and Floor No.2 Wire (Left Center Pillar)
BB1	118 (LHD)	Rear Door No.1 Wire and Floor Wire (Right Center Pillar)
BC1	118 (LHD)	Floor No.2 Wire and Floor Wire (Under the Right Rear Cushion)
BE1	120 (LHD)	Floor No.2 Wire and Front Seat LH Wire (Under the Driver's Seat)

: GROUND POINTS

Code	See Page	Ground Points Location
EC	112 (LHD)	Left Fender Apron
ID	114 (LHD)	Cowl Side Panel LH
IG	114 (LHD)	Cowl Side Panel RH
IH	114 (LHD)	Front Floor Panel Center LH
BJ	118 (LHD)	Front Floor Panel LH
BK	118 (LHD)	Left Quarter Panel LH
BL	118 (LHD)	Front Floor Panel RH
BM	118 (LHD)	Roof Panel

: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B2	118 (LHD)	Roof Wire			