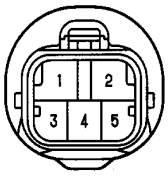
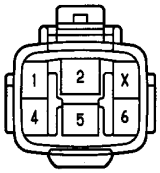
A 6 Ⓐ BLACK



A 7 Ⓑ GRAY

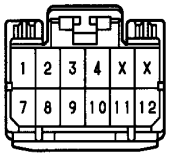
A 8 Ⓐ GRAY

A 9 Ⓑ GRAY

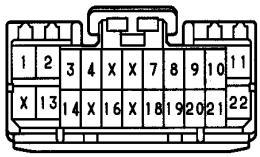


A10, A11 GRAY

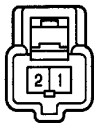
A18 Ⓑ



A19 Ⓐ

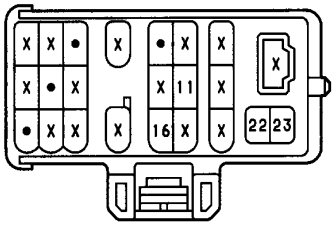


A31 GRAY

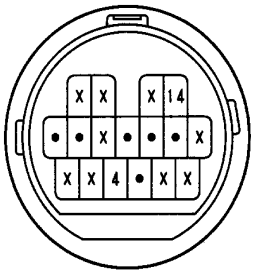


A32 GRAY

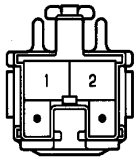
D 1 BLACK



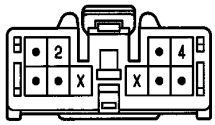
D 5 DARK GRAY

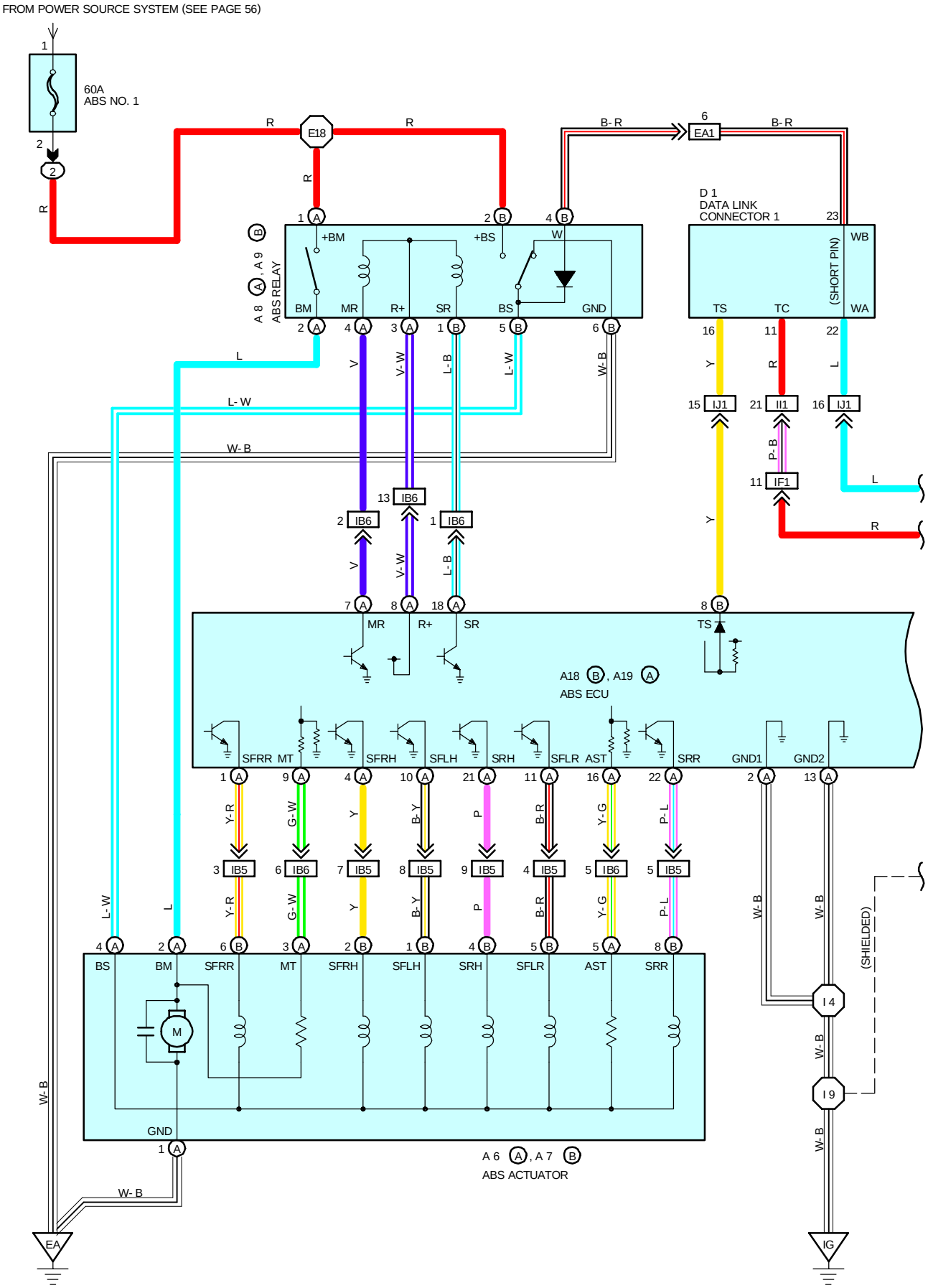


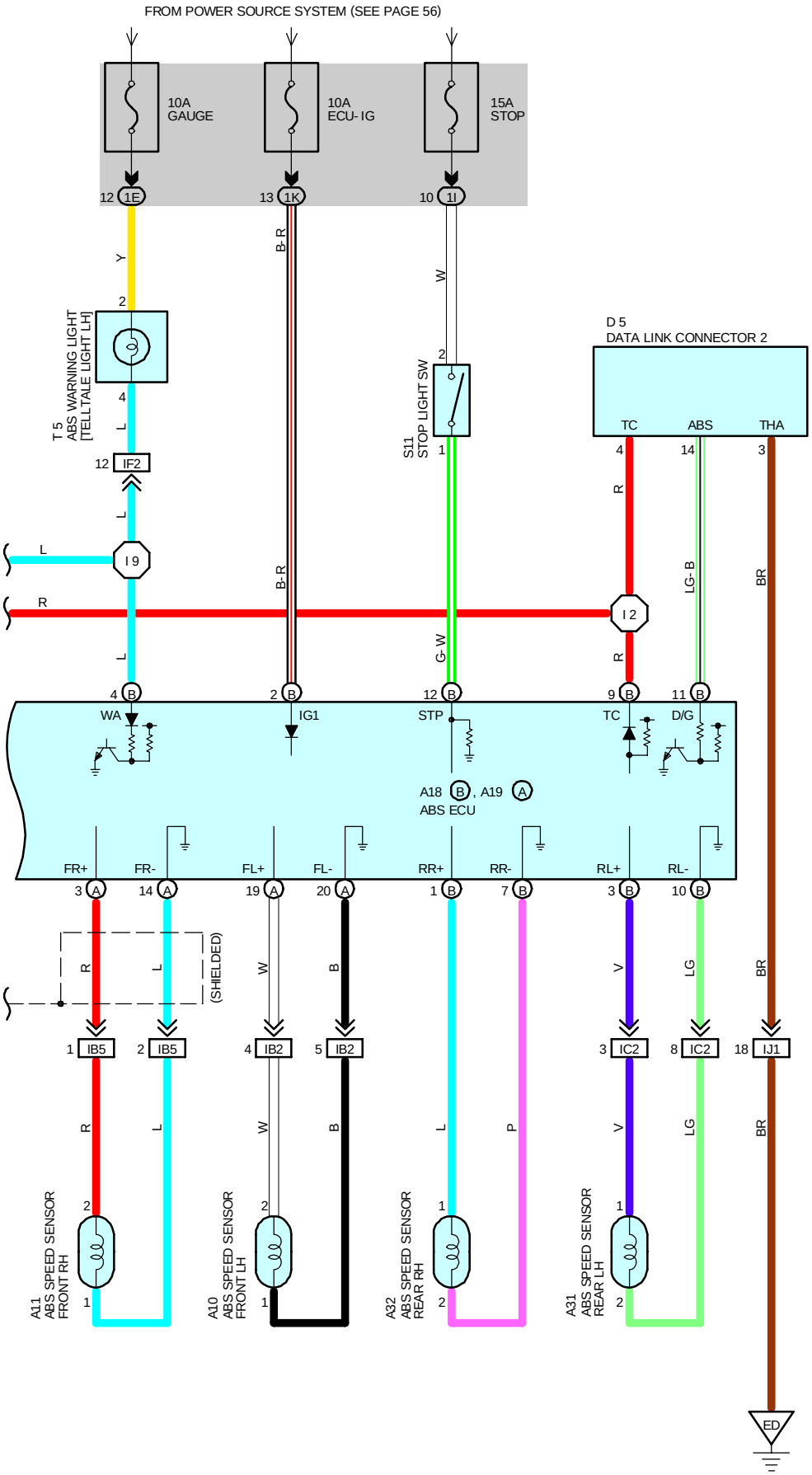
S11 BLUE



T 5




FROM POWER SOURCE SYSTEM (SEE PAGE 56)
60A
ABS NO. 1
E18
EA1
D 1
DATA LINK
CONNECTOR 1
(SHORT PIN)
A 8 , A 9
ABS RELAY
+BM
+BS
BM
MR
R+
SR
BS
GND
TS
TC
WB
WA
IJ1
II1
IF1
IB6
IB5
A18 , A19
ABS ECU
SFRR
MT
SFRH
SFLH
SRH
SFLR
AST
SRR
GND1
GND2
A 6 , A 7
ABS ACTUATOR
I 4
I 9
(SHIELDED)
EA
IG


FROM POWER SOURCE SYSTEM (SEE PAGE 56)
10A GAUGE
10A ECU-IG
15A STOP
12 1E
13 1K
10 1I
Y
B-R
W
2
T 5
ABS WARNING LIGHT [TELLTALE LIGHT LH]
4
L
12 IF2
S11
STOP LIGHT SW
1
D 5
DATA LINK CONNECTOR 2
TC
ABS
THA
4
14
3
R
LG-B
BR
L
I 9
R
I 2
G-W
4 B
2 B
12 B
9 B
11 B
WA
IG1
STP
TC
D/G
A18 B , A19 A
ABS ECU
FR+
FR-
FL+
FL-
RR+
RR-
RL+
RL-
3 A
14 A
19 A
20 A
1 B
7 B
3 B
10 B
(SHIELDED)
V
LG
1 IB5
2 IB5
4 IB2
5 IB2
3 IC2
8 IC2
18 IJ1
A11
ABS SPEED SENSOR FRONT RH
A10
ABS SPEED SENSOR FRONT LH
A32
ABS SPEED SENSOR REAR RH
A31
ABS SPEED SENSOR REAR LH
P
ED

SYSTEM OUTLINE

THIS SYSTEM CONTROLS THE RESPECTIVE BRAKE FLUID PRESSURES ACTING ON THE DISC BRAKE CYLINDERS OF THE RIGHT FRONT WHEEL, LEFT FRONT WHEEL AND REAR WHEELS WHEN THE BRAKES ARE APPLIED IN A PANIC STOP SO THAT THE WHEELS DO NOT LOCK. THIS RESULTS IN IMPROVED DIRECTIONAL STABILITY AND STEERABILITY DURING PANIC BRAKING.

1. INPUT SIGNALS

(1) SPEED SENSOR SIGNAL
THE SPEED OF THE WHEELS IS DETECTED AND INPUT TO **TERMINALS FL+, FR+, RL+** AND **RR+** OF THE ABS ECU.

(2) STOP LIGHT SW SIGNAL
A SIGNAL IS INPUT TO **TERMINAL STP** OF THE ABS ECU WHEN THE BRAKE PEDAL IS DEPRESSED.

2. SYSTEM OPERATION

DURING SUDDEN BRAKING, THE ABS ECU WHICH HAS SIGNALS INPUT FROM EACH SENSOR CONTROLS THE CURRENT FLOWING TO THE SOLENOID INSIDE THE ACTUATOR AND LETS THE HYDRAULIC PRESSURE ACTING ON EACH WHEEL CYLINDER ESCAPE TO THE RESERVOIR. THE PUMP INSIDE THE ACTUATOR IS ALSO OPERATING AT THIS TIME AND IT RETURNS THE BRAKE FLUID FROM THE RESERVOIR TO THE MASTER CYLINDER, THUS PREVENTING LOCKING OF THE VEHICLE WHEELS.

IF THE ECU JUDGES THAT THE HYDRAULIC PRESSURE ACTING ON THE WHEEL CYLINDER IS INSUFFICIENT, THE CURRENT ACTING ON SOLENOID IS CONTROLLED AND THE HYDRAULIC PRESSURE IS INCREASED.

HOLDING OF THE HYDRAULIC PRESSURE IS ALSO CONTROLLED BY THE ECU, BY THE SAME METHOD AS ABOVE, BY REPEATED PRESSURE REDUCTION, HOLDING AND INCREASE ARE REPEATED TO MAINTAIN VEHICLE STABILITY AND TO IMPROVE STEERABILITY DURING SUDDEN BRAKING.

SERVICE HINTS

A 6 (A), A 7 (B) ABS ACTUATOR

(A) 1-GROUND : ALWAYS CONTINUITY
(B) 5-(A) 4:33 Ω
(B) 1,**(B)** 2,**(B)** 4,**(A)** 4:APPROX. **8.8** Ω
(B) 5,**(B)** 6,**(B)** 8,**(A)** 4:APPROX. **4.3** Ω

A10, A11 ABS SPEED SENSOR FRONT LH, RH

1-2:1.4-1.8 KΩ **(20°C, 68°F)**

A31, A32 ABS SPEED SENSOR REAR LH, RH

1-2:0.9-1.3 KΩ **(20°C, 68°F)**

A18, (B), A19(A) ABS ECU

(B) 2-GROUND **:10-14** VOLTS WITH THE IGNITION SW ON
(B)12-GROUND **:10-14** VOLTS WITH THE STOP LIGHT SW ON (BRAKE PEDAL DEPRESSED)
(A) 2, **(A)** 13-GROUND **:ALWAYS CONTINUITY**
(A) 1, (A) 4, (A) 10, (A) 11, (A) 21, (A) 22-GROUND**:10-14** VOLTS WITH THE IGNITION SW ON

S11 STOP LIGHT SW

1-2:CLOSED WITH THE BRAKE PEDAL DEPRESSED

: PARTS LOCATION

CODE		SEE PAGE	CODE		SEE PAGE	CODE	SEE PAGE
A 6	A	26(2JZ-GE)	A11		26(2JZ-GE)	D 1	26(2JZ-GE)
A 7	B	26(2JZ-GE)	A18	B	28	D 5	28
A 8	A	26	A19	A	28	S11	29
A 9	B	26	A31		30	T 5	29
A10		26(2JZ-GE)	A32		30		

: RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
2	22	R/B NO. 2 (ENGINE COMPARTMENT LEFT)

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
1E	20	INSTRUMENT PANEL WIRE AND J/B NO. 1 (LEFT KICK PANEL)
1I	20	COWL WIRE AND J/B NO. 1 (LEFT KICK PANEL)
1K		

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

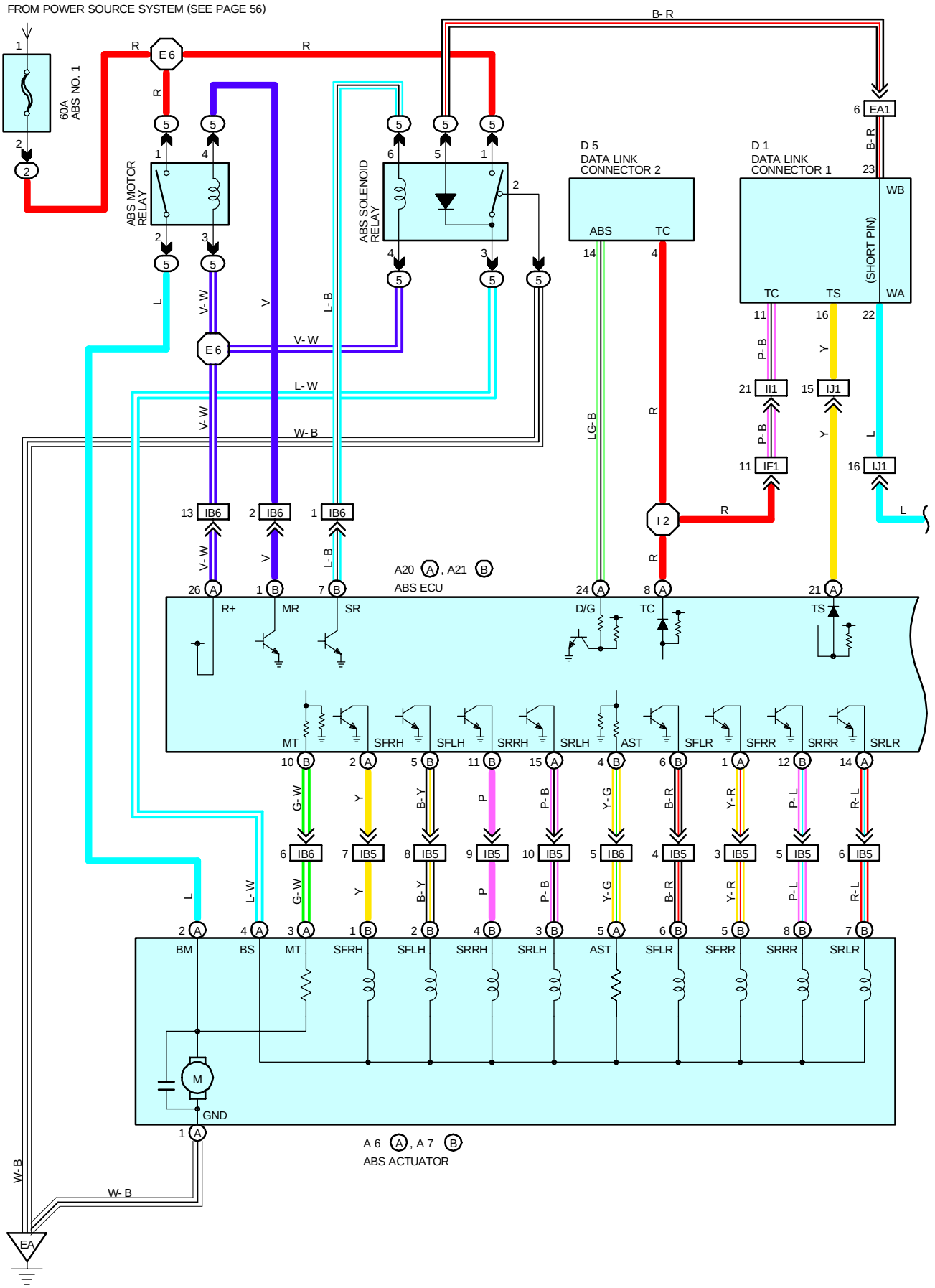
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
EA1	34(2JZ-GE)	ENGINE WIRE AND ENGINE ROOM MAIN WIRE (NEAR THE R/B NO. 2)
IB2	36	ENGINE ROOM MAIN WIRE AND COWL WIRE (LEFT KICK PANEL)
IB5	36	ENGINE ROOM MAIN WIRE AND COWL WIRE (RIGHT KICK PANEL)
IB6		
IC2	36	FLOOR NO. 2 WIRE AND COWL WIRE (LEFT KICK PANEL))
IF1	36	INSTRUMENT PANEL WIRE AND COWL WIRE (INSTRUMENT PANEL REINFORCEMENT LH)
IF2		
II1	38	ENGINE WIRE AND INSTRUMENT PANEL WIRE (RIGHT KICK PANEL)
IJ1	38	ENGINE WIRE AND COWL WIRE (RIGHT KICK PANEL)

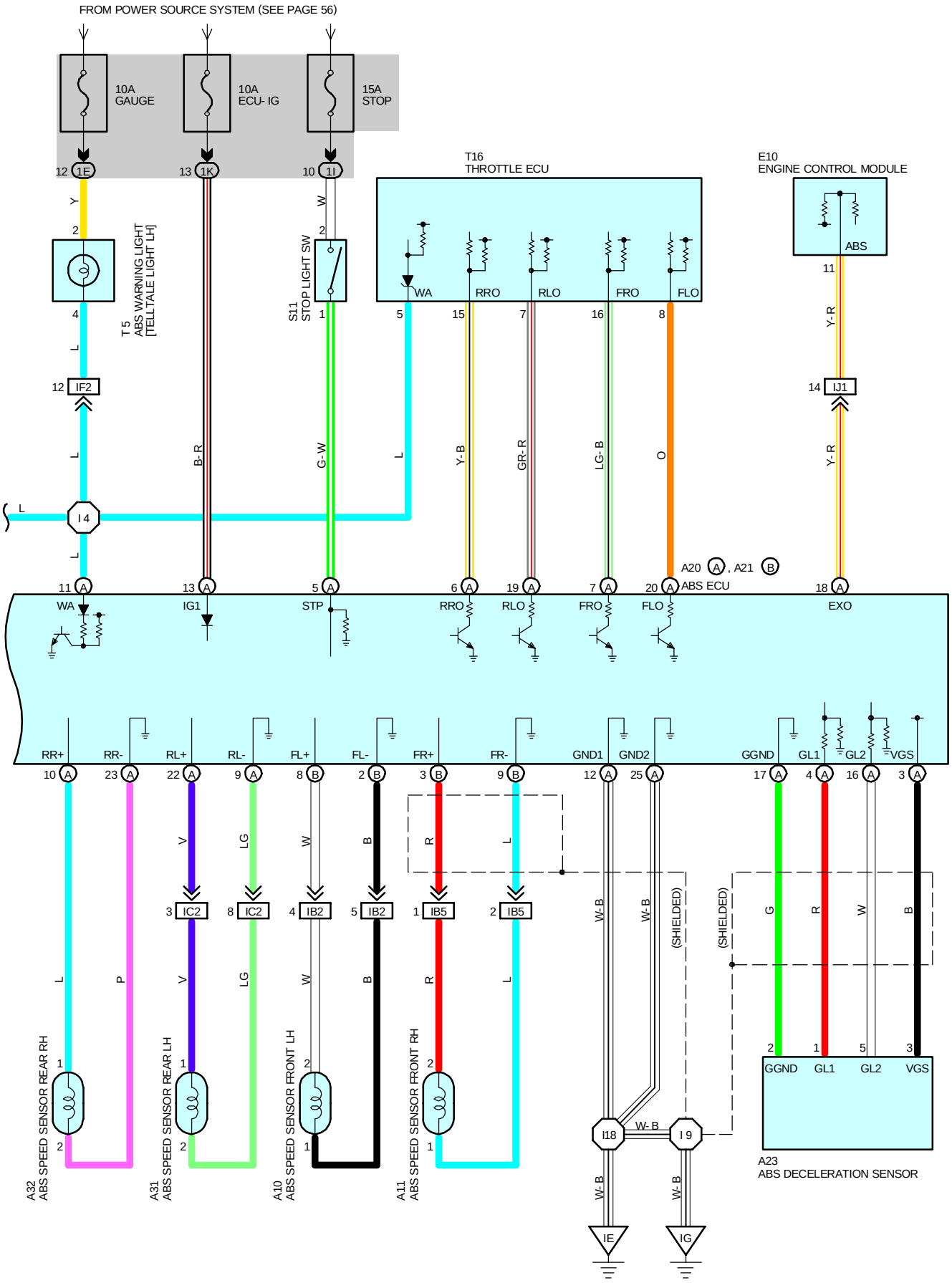
: GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
EA	34(2JZ-GE)	FRONT SIDE OF RIGHT FENDER
ED	34(2JZ-GE)	REAR SIDE OF INTAKE FENDER
IG	36	RIGHT KICK PANEL

: SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E18	34	ENGINE ROOM MAIN WIRE	I 4	38	COWL WIRE
I 2	38	COWL WIRE	I 9		


FROM POWER SOURCE SYSTEM (SEE PAGE 56)
60A ABS NO. 1
ABS MOTOR RELAY
ABS SOLENOID RELAY
D 5 DATA LINK CONNECTOR 2
D 1 DATA LINK CONNECTOR 1
(SHORT PIN)
A20 A, A21 B
ABS ECU
R+
MR
SR
D/G
TC
TS
MT
SFRH
SFLH
SRRH
SRLH
AST
SFLR
SFRR
SRRR
SRLR
BM
BS
M
GND
A 6 A, A 7 B
ABS ACTUATOR
EA


FROM POWER SOURCE SYSTEM (SEE PAGE 56)
10A GAUGE
10A ECU- IG
15A STOP
12 1E
13 1K
10 1I
T16 THROTTLE ECU
E10 ENGINE CONTROL MODULE
ABS
T 5 ABS WARNING LIGHT [TELLTALE LIGHT LH]
S11 STOP LIGHT SW
WA
RRO
RLO
FRO
FLO
IF2
IJ1
I 4
A20 A , A21 B
ABS ECU
IG1
STP
EXO
RR+
RR-
RL+
RL-
FL+
FL-
FR+
FR-
GND1
GND2
GGND
GL1
GL2
VGS
IC2
IB2
IB5
I18
I 9
IE
IG
(SHIELDED)
A32 ABS SPEED SENSOR REAR RH
A31 ABS SPEED SENSOR REAR LH
A10 ABS SPEED SENSOR FRONT LH
A11 ABS SPEED SENSOR FRONT RH
A23 ABS DECELERATION SENSOR

SYSTEM OUTLINE

THIS SYSTEM CONTROLS THE RESPECTIVE BRAKE FLUID PRESSURES ACTING ON THE DISC BRAKE CYLINDERS OF THE RIGHT FRONT WHEEL, LEFT FRONT WHEEL, RIGHT REAR WHEEL AND LEFT REAR WHEEL WHEN THE BRAKES ARE APPLIED IN A PANIC STOP SO THAT THE WHEELS DO NOT LOCK.
THIS RESULTS IN IMPROVED DIRECTIONALLY STABILITY AND STEERABILITY DURING PANIC BRAKING.

1. INPUT SIGNALS

(3) SPEED SENSOR SIGNAL
THE SPEED OF THE WHEELS IS DETECTED AND INPUT TO **TERMINALS FL+, FR+, RL+** AND **RR+** OF THE ABS ECU.

(4) STOP LIGHT SW SIGNAL
A SIGNAL IS INPUT TO **TERMINAL STP** OF THE ABS ECU WHEN THE BRAKE PEDAL IS DEPRESSED.

(5) DECELERATION SENSOR SIGNAL
LONGITUDINAL AND LATERAL ACCELERATION IS DETECTED AND INPUT TO THE ABS ECU.

2. SYSTEM OPERATION

DURING SUDDEN BRAKING, THE ABS ECU WHICH HAS SIGNALS INPUT FROM EACH SENSOR CONTROLS THE CURRENT FLOWING TO THE SOLENOID INSIDE THE ACTUATOR AND LETS THE HYDRAULIC PRESSURE ACTING ON EACH WHEEL CYLINDER ESCAPE TO THE RESERVOIR. THE PUMP INSIDE THE ACTUATOR IS ALSO OPERATING AT THIS TIME AND IT RETURNS THE BRAKE FLUID FROM THE RESERVOIR TO THE MASTER CYLINDER, THUS PREVENTING LOCKING OF THE VEHICLE WHEELS.
IF THE ECU JUDGES THAT THE HYDRAULIC PRESSURE ACTING ON THE WHEEL CYLINDER IS INSUFFICIENT, THE CURRENT ACTING ON SOLENOID IS CONTROLLED AND THE HYDRAULIC PRESSURE IS INCREASED.
HOLDING OF THE HYDRAULIC PRESSURE IS ALSO CONTROLLED BY THE ECU, BY THE SAME METHOD AS ABOVE, BY REPEATED PRESSURE REDUCTION, HOLDING AND INCREASE ARE REPEATED TO MAINTAIN VEHICLE STABILITY AND TO IMPROVE STEERABILITY DURING SUDDEN BRAKING.

SERVICE HINTS

A20 (A), A21 (B) ABS ECU

(A) 13-GROUND::**10-14** VOLTS WITH THE IGNITION SW AT ON POSITION
(A) 5-GROUND:**10-14** VOLTS WITH THE STOP LIGHT SW ON
(A) 12,**(A)** 25-GROUND:ALWAYS CONTINUITY

A 6 (A), A 7 (B) ABS ACTUATOR

(A) 1-GROUND:ALWAYS CONTINUITY
(A) 5-(A) **4.33** Ω
(B) 1, **(B)** 2, **(B)** 3, **(B)** 4- **(A)** 4,:APPROX. **8 8** Ω
(B) 5, **(B)** 6, **(B)** 7, **(B)** 8- **(A)** 4,:APPROX. **4.3** Ω

S11 STOP LIGHT SW

2-1:CLOSED WITH THE BRAKE PEDAL DEPRESSED

A10, A11 ABS SPEED SENSOR FRONT LH, RH

1-2:0.4-1.8 KΩ **(20°C, 68°F)**

A31, A32 ABS SPEED SENSOR REAR LH, RH

1-2:0.9-1.3 KΩ **(20°C, 68°F)**

: PARTS LOCATION

CODE		SEE PAGE	CODE		SEE PAGE	CODE	SEE PAGE
A 6	A	24(2JZ-GTE)	A21	B	28	D 5	28
A 7	B	24(2JZ-GTE)	A23		28	E10	29
A10		24(2JZ-GTE)	A31		30	S11	29
A11		24(2JZ-GTE)	A32		30	T 5	29
A20	A	28	D 1		24(2JZ-GTE)	T16	29

: RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
2	22	R/B NO. 2 (ENGINE COMPARTMENT LEFT)
5	23	R/B NO. 5 (ENGINE COMPARTMENT RIGHT)

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1E	20	INSTRUMENT PANEL WIRE AND J/B NO. 1 (LEFT KICK PANEL)
1H	20	COWL WIRE AND J/B NO. 1 (LEFT KICK PANEL)
1I	20	COWL WIRE AND NO. 1 (LEFT KICK PANEL
1K	20	COWL WIRE AND J/B NO. 1 (LEFT KICK PANEL)

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
EA1	32(2JZ-GTE)	ENGINE WIRE AND ENGINE ROOM MAIN WIRE (NEAR THE R/B NO. 2)
IB2	36	ENGINE ROOM MAIN WIRE AND COWL WIRE (LEFT KICK PANEL)
IB5	36	ENGINE ROOM MAIN WIRE AND COWL WIRE (RIGHT KICK PANEL)
IB6		
IC2	36	FLOOR NO. 2 WIRE AND COWL WIRE (LEFT KICK PANEL)
IF1	36	INSTRUMENT PANEL WIRE AND COWL WIRE (INSTRUMENT PANEL REINFORCEMENT LH)
IF2		
II1	38	ENGINE WIRE AND INSTRUMENT PANEL WIRE (RIGHT KICK PANEL)
IJ1	38	ENGINE WIRE AND COWL WIRE (RIGHT KICK PANEL)

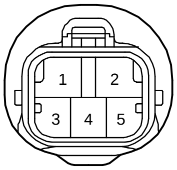
: GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
IE	36	LEFT KICK PANEL
IG	36	RIGHT KICK PANEL

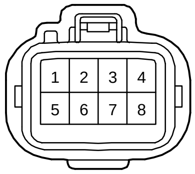
: SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I 2	38	COWL WIRE	I 9	38	COWL WIRE
I11			I18		

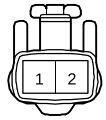
A 6 (A) BLACK



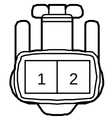
A 7 (B) GRAY



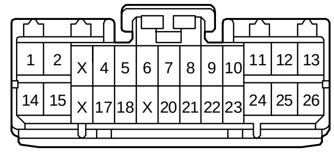
A10 GRAY



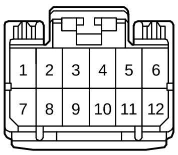
A11 GRAY



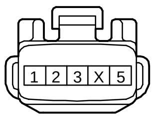
A20 (A)



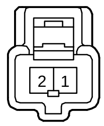
A21 (B)



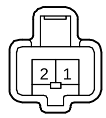
A23



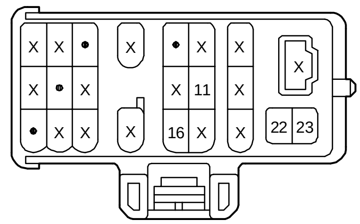
A31 GRAY



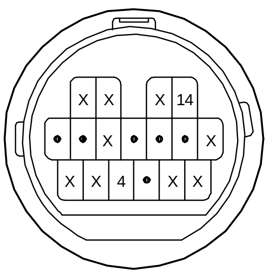
A32 GRAY



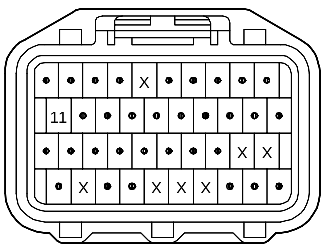
D 1 BLACK



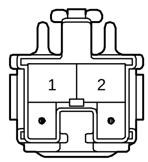
D 5 DARK GRAY



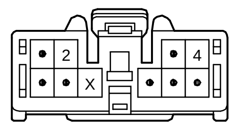
E10 DARK GRAY



S11 BLUE



T 5



T16