

Hyundai Powertrain Actuators

AT

1st Gear Lamp
1st Shift Indicator Lamp On
1st Shift Indicator Lamp On (Optional)
2 Lamp
2 Lamp (OPPrRgOut) Data = KPO_2 (2)
2-4/B Solenoid
26 Solenoid 6
2nd (2-4/B) Solenoid
2nd Gear Lamp
2nd Shift Indicator Lamp On
2nd Shift Indicator Lamp On (Optional)
2nd Solenoid
35R Solenoid 3
3rd Gear Lamp
3rd Lamp
3rd Lamp (OPPrRgOut) Data = KPO_3 (3)
3rd Shift indicator Lamp On
3rd Shift Indicator Lamp On (Optional)
4th Gear Lamp
4th Shift Indicator Lamp On
4th Shift Indicator Lamp On (Optional)
5th Gear Lamp
5th Shift indicator Lamp On
5th Shift Indicator Lamp On (Optional)
6th Gear Lamp
7th Gear Lamp
8th Gear Lamp
A/T Control Relay
A/T Control Relay Turn OFF
A/T Main Relay
Clear Adaptation Value
Clear CAN Learnable Status
Clear Learning Value
Clear Learning Values
Clear SubRom + Adaptation Data
D Lamp
D Lamp (OPPrRgOut) Data = KPO_D (6)
Damper Clutch Control Solenoid
Damper Clutch Solenoid
EEPROM initialize
fmv1
fmv2
Gear Indicator Lamp - Gear 01
Gear Indicator Lamp - Gear 02
Gear Indicator Lamp - Gear 03
Gear Indicator Lamp - Gear 04
Gear Indicator Lamp - Gear 05
Gear Indicator Lamp - Gear 06
Gear Indicator Lamp - Gear 07

Gear Indicator Lamp - Gear 08
H/C Solenoid
Hold Lamp
L & R/B Solenoid
L Lamp
L Lamp (OPPrRgOut) Data = KPO_1 (1)
L/C Solenoid
L/U Solenoid 1
Line Pressure Control Solenoid (VFS)
Linear Solenoid Valve (VFS)
LR (L&R/B) Solenoid
LR Solenoid
LR/DIR (5 Speed Only) Solenoid
LU Solenoid
N Lamp
N Lamp (OPPrRgOut) Data = KPO_N (7)
O/D Lamp
O/D Off Lamp
O/D Solenoid 2
OD (H/C) Solenoid
OD Lamp
OD Solenoid
ON/OFF 1
ON/OFF 2
P Lamp
P Lamp (OPPrRgOut) Data = KPO_P (9)
Parking On/Off Solenoid A(Drive)
Parking On/Off Solenoid C(Parking)
Parking On/Off Solenoid D(PRH)
PCSV-A Solenoid
PCSV-B Solenoid
PCSV-C Solenoid
PL Solenoid
PL Solenoid 5
Pressure Control Solenoid A
Pressure Control Solenoid B
Pressure Control Solenoid C
Pressure Control Solenoid D
Pressure Control Solenoid E
Prohibit Intelligent Shift
R Lamp
R Lamp (OPPrRgOut) Data = KPO_R (8)
RED Solenoid
RED Solenoid (5 Speed Only)
RED Solenoid (5 Speed)
Reverse Lamp Relay
SBW -Parking On/Off Solenoid B(Reverse)
SCSV-A Solenoid
SCSV-B Solenoid
SCSV-C Solenoid
Shift Lock

Shift Solenoid A
Shift Solenoid B
Shift Solenoid C
Shift Solenoid D
Shift Solenoid E
Shift Solenoid F
Shift Solenoid-A
Shift Solenoid-A (UD)
Shift Solenoid-B
Shift Solenoid-B (2ND)
Shift Solenoid-C
Shift Solenoid-C (35R)
Shift Solenoid-D
Shift Solenoid-D (OD)
Shift Solenoid-E (SS-A)
Shift Solenoid-F (SS-B)
Snow Lamp
Sol
Sol 1
Sol 1 I/C
Sol 2
Sol 2 L/U
Sol 3
Sol 3 HLR/C
Sol 4
Sol 4 PL
Sol 5
Sol 5 FR/B
Sol 6
Sol 6 D/C
Start Relay
U/D Solenoid 4
UD (L/C) Solenoid
UD Solenoid
VFS Solenoid

AT(DCT)

1st Gear (DCT Only)
2nd Gear (DCT Only)
3rd Gear (DCT Only)
4th Gear (DCT Only)
5th Gear (DCT Only)
6th Gear (DCT Only)
Clear Learning Value
Clutch 1 (DCT Only)
Clutch 2 (DCT Only)
Disable Safety Concept
Disengage Gear (DCT Only)
Reverse Gear (DCT Only)
Sequence #1
Sequence #2

Sequence #3

Engine

A/C Clutch

A/C compressor Relay

BLM Learn

Bypass Valve (onlyTCI)

CAM Phaser Intake Bank 1

CAM Phaser Intake Bank 2

Canister Purge Valve

Canister Purge Valve (CPS)

Canister Shut Off Valve

Canister Shut Off Valve (Leak Test)

Canister Shut Off Valve Clocked

Canister Vent

Canister Vent Clocked

CO Adjust

Cooling Fan PWM

Cooling Fan PWM (CFA_PWM)

Cooling Fan Relay High

Cooling Fan Relay High (CFA_H)

Cooling Fan Relay High (CFH)

Cooling Fan Relay Low

Cooling Fan Relay Low (CFA_L)

Cooling Fan Relay Low (CFL)

CO-potentiometer Trim

Cruise Control Main Lamp

Cruise Control Set Lamp

Cruise Engage Lamp

Cylinder #1

Cylinder #2

Cylinder #3

Cylinder #4

Cylinder #5

Cylinder #6

Cylinder #7

Cylinder #8

Cylinder 1 Shut Off

Cylinder 1 Shut Off (INH_IV_1)

Cylinder 2 Shut Off

Cylinder 2 Shut Off (INH_IV_2)

Cylinder 3 Shut Off

Cylinder 3 Shut Off (INH_IV_3)

Cylinder 4 Shut Off

Cylinder 4 Shut Off (INH_IV_4)

Cylinder 5 Shut Off

Cylinder 6 Shut Off

Cylinder 7 Shut Off

Cylinder 8 Shut Off

Diagnostic Lamp - MIL

EGR Recirculation Valve

EGR Solenoid.Valve

EGR Valve

Engine Main Relay

ETC Motor

ETC Motor (MTC)

Evap EOL

Evap Leakage Test

Evap Service Bay

E-Waste Gate Valve (only TCI)

Fan High

Fan Low

Fan PWM

Fuel Consumption

Fuel Open Loop

Fuel Pump

Fuel Pump Control

Fuel Pump Relay

Fuel Pump Relay (EFP)

Fuel System Leak Test

FUP_Lamp

Idle Cat Mon

Idle Speed Actuator

Idle Speed Actuator (ISA)

Ignition Coil - Cylinder #1

Ignition Coil - Cylinder #2

Ignition Coil - Cylinder #3

Ignition Coil - Cylinder #4

Ignition Coil - Cylinder #5

Ignition Coil - Cylinder #6

Ignition Coil - Cylinder #7

Ignition Coil - Cylinder #8

Ignition Coil 0

Ignition Coil 01

Ignition Coil 02

Ignition Coil 03

Ignition Coil 04

Ignition Coil 05

Ignition Coil 06

Ignition Coil 1

Ignition Coil 2

Ignition Coil 3

Ignition Coil 4

Ignition Coil 5

Ignition Coil 6

Ignition Coil 7

Ignition Coil 8

Ignition Coil Enable / Disable - Cylinder 1

Ignition Coil Enable / Disable - Cylinder 2

Ignition Coil Enable / Disable - Cylinder 3

Ignition Coil Enable / Disable - Cylinder 4

Ignition Coil Enable / Disable - Cylinder 5

Ignition Coil Enable / Disable - Cylinder 6

Ignition Coil Enable / Disable - Cylinder 7

Ignition Coil Enable / Disable - Cylinder 8

Immobilizer Control Lamp

Immobilizer Control Light

Immobilizer Control Light (CNTL_IMOB)

Immobilizer Lamp

Injector 1

Injector 2

Injector 3

Injector 4

Injector 5

Injector 6

Injector Disable - Cylinder 1

Injector Disable - Cylinder 2

Injector Disable - Cylinder 3

Injector Disable - Cylinder 4

Injector Disable - Cylinder 5

Injector Disable - Cylinder 6

Injector Disable - Cylinder 7

Injector Disable - Cylinder 8

Limp Home Sol

Main Relay

O2 Heater Front

O2 Heater Front (LSH_UP)

O2 Heater Rear

O2 Heater Rear (LSH_DOWN)

O2 Heaters Front

O2 Heaters Rear

Oil Control Valve

Oil Control Valve Exhaust Bank 1

Oil Control Valve Exhaust Bank 2

Oil Control Valve for IVVT

Oil Control Valve for IVVT Exhaust Bank 1

Oil Control Valve for IVVT Exhaust Bank 2

Oil Control Valve for IVVT Intake Bank 1

Oil Control Valve for IVVT Intake Bank 2

Oil Control Valve Intake Bank 1

Oil Control Valve Intake Bank 2

Oil Control Valve(OCV) for (IVVT)

Port Flap Actuator

Purge Cont.Sol

Radiator Fan High

Radiator Fan Low

Shut Off Valve

Shut Off Valve (SOV)

Shut Off Valve (SOV) clocked

Shut Off Valve clocked

Shut Off Valve Permanently On

SOV_FUEL_H

SOV_FUEL_L

Spark Advance/Retard

Stop ETV FAIL SAFE

Stop No. 1 Injector

Stop No. 2 Injector

Stop No. 3 Injector

Stop No. 4 Injector

Stop No. 5 Injector
Stop No. 6 Injector
Tachometer
TEC Learn
Variable Intake Manifold 1
Variable Intake Manifold 2
Variable Intake Switch
Variable Valve Lift Control
Volume Control Valve
Volume Control Valve (VCV)

HCU

E/C Fluid Pressure Compensate
Engine Test Off
Engine Test On
LDC Test

MCU

EWP Control Operation
Motor and HSG ReSol ver Auto-Calibration
Motor Speed Control Operation
Motor Torque Control Operation

Hyundai Body Actuators

AC

Blower Fan

Blower Fan – High

Blower Fan – Low

Blower Fan – Medium

Blower Fan – Off

Compressor OFF

Compressor ON

Def door

Driver air mix door

Driver air mix door – 0%

Driver air mix door – 100%

Driver air mix door – 50%

Driver mode door

Driver mode door – Def

Driver mode door – Floor

Driver mode door – Vent

Driver mode door (Def) – 0%

Driver mode door (Def) – 100%

Driver mode door (Def) – 50%

Driver mode door (Floor) – 0%

Driver mode door (Floor) – 100%

Driver mode door (Floor) – 50%

Driver mode door (Vent) – 0%

Driver mode door (Vent) – 100%

Driver mode door (Vent) – 50%

E-Comp

Intake door

Intake door – Fresh

Intake door – Recirc

Normal mode

Pass air mix door

Passenger air mix door – 0%

Passenger air mix door – 100%

Passenger air mix door – 50%

Passenger mode door – Def

Passenger mode door – Floor

Passenger mode door – Vent

PTC Heater ON

Rear air mix door – 0%

Rear air mix door – 100%

Rear air mix door – 50%

Rear blower fan – High

Rear blower fan – Low

Rear blower fan – Medium

Rear blower fan – Off

Rear mode door – B/L

Rear mode door – Floor

Rear mode door – Vent

Rear vent door – Close

Rear vent door – Open

ADM

Door Courtesy Lamp

Door Lock Out

Door Unlock Out

Illumination Out

OSRVM Defog

OSRVM Down

OSRVM Left

OSRVM Right

OSRVM Up

Power Window Down Out

Power Window up Out

AFLS

Both actuator test

HLL actuator test

LED AFLS AIM'G Mode

BCM

2-Turn Unlock / Dead Lock Output

2-Turn Unlock Relay

Activate Bumper Antenna

Activate Hat Shelf Antenna

Activate Interior1 Antenna

Activate Interior2 Antenna

Activate LH Side Antenna

Activate RH Side Antenna

Activate Trunk1 Antenna

Activate Trunk2 Antenna

Adjustable Pedal On Off Signal Output

As Seat Belt Indicator

Assist Seat Belt Indicator

Assist Seat Belt Indicators

ATM Shift Lock Solenoid

ATM Solenoid

Auto Light Power

Auto Light Sensor 5V Ref

AV Tail Output

Back Up Signal Output

BH : Room Lamp. VI : Front Room Lamp

Burglar Alarm Indicator

Burglar Horn Output

Burglar Horn RLY

Buzzer

Central Door Lock Indicator

Central Door Lock RLY

Central Door Unlock RLY

Chime

Chime Bell

Chime Buzzer

Chime Buzzer (Door warning)

Chime Buzzer(Door Warning)

D_DRL RLY (EC)

Day Running light

Defogger Output

Defogger & Deicer RLY

Defroster relay

Door Lock Output

Door Lock Relay

Door unlock Output

Door Unlock Relay

Door Warning LED

Dr Seat Belt Indicator

Dr Unlock Relay

Dr Unlock Relay(DEAD Lock)

Driver Door Unlock RLY

Driver Seat Belt Indicator

DRL EUROPE Output(DEDICATED LAMP)

ESCL ENABLE(ESCL only)

External Buzzer output

Flasher Sound Relay

Fold Mirror Relay

Foot Lamp

Fr Deicer Relay

Front fog lamp

Front fog lamp indicator

Front Fog Lamp Output

Front Fog Output

Front Wiper Relay

Hazard Indicator

Hazard Lamp + Flasher buzzer output

Hazard Output

Hazard Relay

Head lamp high

Head lamp high indicator

Head Lamp High Output

Head lamp low

Head Lamp Low Control Output

Head Lamp Low GND Control Output

Head Lamp Low Output

Head Lamp Output

Head Lamp Relay

Head Lamp Washer

High speed wiping relay

Horn

Horn Output

Horn Relay

Horn Relay Drive

IGN Key hole illumination

IGN Key Illumination

Ignition Key Hole Illumination
 Interior Lamp Autocut
 Interior Lamp Autocut Relay Output
 Interior1 Antenna Interior2 Antenna
 Internal Chime Buzzer
 IOD RLY
 Key illumination
 Key illumination (non-ESCL only)
 Key Inter Lock Solenoid
 KEY SOLENOID
 Left turn signal + Flasher buzzer output
 Lock Relay
 Low speed wiping relay
 Luggage Lamp RLY
 Micro Burglar Relay Drive Output
 Micro MTS Burglar Alarm Output
 MTS
 Navi WakeUp Output
 Navi Wakeup Signal Output
 O_RPASOFF_INDI
 Over Speed Warning Indicator
 Panel Lights Trip Computer Output
 Perform LF Antenna Check for Bumper Ante
 Perform LF Antenna Check for Hat Shelf Ant
 Perform LF Antenna Check for Interior1 Ant
 Perform LF Antenna Check for LH Side Ante
 Perform LF Antenna Check for RH Side Ante
 Perform LF Antenna Check for Trunk1 Ante
 Perform LF Antenna Check for Trunk2 Ante
 Perform SCI Diagnosis for Enternal Receiver
 Perform SCI Diagnosis for ESCL_COM
 Power Feed To Sunroof Relay Coil
 Power Window Output
 Power Window Relay
 Power Window RLY
 RC Seat Belt Indicator
 Rear Defog Switch Indicator Output
 Rear Fog Lamp RLY
 Rear Fog Lamp Switch Indicator Output
 Rear fog lamp x
 Rear Fog Output
 Rear LH Power Window Down
 Rear LH Power window Up
 Rear RH Power Window Down
 Rear RH Power window Up
 Rear Room Lamp for only VI
 Rear Seat Warmer Left
 Rear Seat Warmer LH Relay
 Rear Seat Warmer RH Relay
 Rear Seat Warmer Right
 Rear Wiper Output
 Rear Wiper Relay
 Rear Wiper RLY

Right turn signal + Flasher buzzer output
 RL Seat Belt Indicator
 Room Lamp
 Room Lamp Output
 RPAS Buzzer
 RPAS Buzzer Output
 RPAS OFF IND
 RPAS SW Indicator
 Rr Defogger Relay
 Rr Fog Relay
 RR Seat Belt Indicator
 Safety P/Wdw ECU
 Safety Power Window
 Safety Power Window Enable
 Seat Belt Indicators
 Security Indicator
 Security LED
 Security Led output
 Sound Mute Signal Output
 Start Inhibit RLY
 Start Inhibition output
 Start Inihabit Output
 Starter Inhibit Relay
 Static Bending Light(LHD)
 Static Bending Light(RHD)
 T/Gate Glass Open Relay
 T/Gate Warning LED
 Tail AV
 Tail Lamp Output
 Tail Lamp Relay
 Tail Lamp Relay/DRL Unit
 Tail Lamp RLY
 Trunk Release
 Trunk Release Output
 Trunk Release Relay
 Trunk Room Lamp for only VI
 Trunk(=Tail Gate) Release Output
 Turn LH Output
 Turn RH Output
 Unlock Relay
 VAS
 VAS Switch Indicator Output
 Windshield Defog Switch Indicator Output
 Wiper LOW Output
 Wiper Relay
 Wiper RLY

DDM

Door Courtesy Lamp
 Door Lock Out
 Door Unlock Out
 Folding Motor Power Feed
 Illumination Out

OSRVM Defog
 OSRVM Down
 OSRVM Left
 OSRVM Right
 OSRVM Up
 Power Window Down Out
 Power Window up Out
 Safety Power Window Auto Down Out
 Safety Power Window Auto Up Out
 Safety Power Window Down Out
 Safety Power Window Up Out

FAM

Burglar Alarm Siren
 Front Washer
 IGN2 Control
 Left Fog Lamp
 Left Headlamp High
 Left Headlamp Low
 Left Lamp Park
 Left Turn Signal
 Rear Washer
 Right Fog Lamp
 Right Headlamp High
 Right Headlamp Low
 Right Lamp Park
 Right Turn Signal
 Viper Low High State
 Viper On Off
 Windshield Defog Timer

IMS

Pedal Backward Motor
 Pedal Forward Motor
 Power Seat FR Height Down Motor
 Power Seat FR Height Up Motor
 Power Seat Recline Backward Motor
 Power Seat Recline Forward Motor
 Power Seat RR Height Down Motor
 Power Seat RR Height Up Motor
 Power Seat Slide Backward Motor
 Power Seat Slide Forward Motor

RAM

Back Up Lamp Back Up Warning System Un
 Door Lock
 Door Unlock
 Fuel Filler Door Solenoid
 Left Turn Signal Lamp
 Left/Right Tail Licence Side Marker
 LH PSD Open Close Signal
 LQG Motor Close
 LQG Motor Open

LSD Power Window Down

LSD Power Window Up

Luggage Lamp LS

Map Lamp LS

Park Signal

PSD PTG On Off Signal

PTG Open Close Signal

Rear Blower Switch Rear Monitor

Rear Defog

Rear Fog Lamps

Rear Wiper Motor

RH PSD Open Close Signal

Right Turn Signal Lamp

Room Lamp LS

Room Lamp LS Door

RQG Motor Close

RQG Motor Open

RSD Power Window Down

RSD Power Window Up

Start Signal

SSB ILLU

SSB LED AMBER

SSB LED BLUE

SRS-AIRBAG

change from assembly mode to normal mo

Erase PODS ECU Faults

PODS re-zero

SKU

Activate AST Side Antenna

Activate Bumper Antenna

Activate DRV Side Antenna

Activate Interior1 Antenna

Activate Interior2 Antenna

Activate Interior3 Antenna

Activate Interior4 Antenna (reserved)

Activate Trunk1 Antenna

ESCL Enable

External Buzzer

HOLDER ILL

IMMO LAMP

Key Out Lamp

O ACC

O IGN1

O IGN2

O STARTER

O_ACC

O_STARTER

Perform Current Key check

Perform ESCL open check (ESCL Only)

Perform LF Antenna Check for AST Side Ant

Perform LF Antenna Check for Bumper Ante

Perform LF Antenna Check for DRV Side Ant

Perform LF Antenna Check for Interior1 Ant

Perform LF Antenna Check for Interior2 Ant

Perform LF antenna check for Interior3 Ant

Perform LF antenna check for Interior4 Ant

Perform LF Antenna Check for Trunk1 Ante

Perform SCI Diagnosis for External Receiver

Perform SCI Diagnosis for ESCL_COM (ESCL

Hyundai Chassis Actuators

4WD

AWD Mode Select
Lamp control
Torque control command
Torque Coupling Control

AAF

Active Air Flap Test
Manually Actuator Flap Close
Manually Actuator Flap Open

ABS

ASV Front Left Valve
ASV front right valve
Brake Lamp Control
DBC Brake Lamp Relay
Disable the valve relay shutdown
Disable valve relay shutdown
Electric shuttle valve (ESV-L)
Electric shuttle valve (ESV-R)
Electric Shuttle Valve : ESV-L
Electric Shuttle Valve : ESV-R
ELECTRIC SHUTTLE VALVE(ESV-L)
ELECTRIC SHUTTLE VALVE(ESV-R)
ESP specific valve HSV1
ESP specific valve HSV1 (not available for ABS)
ESP specific valve HSV2
ESP specific valve HSV2 (not available for ABS)
ESP specific valve USV1
ESP specific valve USV1 (not available for ABS)
ESP specific valve USV2
ESP specific valve USV2 (not available for ABS)
ESS Brake Lamp Relay
ESV primary valve
ESV secondary valve
ESV-L Control
ESV-R Control
Front left valve (IN)
Front Left Valve (inlet)
Front Left Valve (Input)
Front left valve (OUT)
Front Left Valve (outlet)
Front Left Valve (Output)
Front right valve (IN)
Front Right Valve (inlet)
Front Right Valve (Input)
Front right valve (OUT)
Front Right Valve (outlet)
Front Right Valve (Output)
High Pressure Switch Valve 1

High Pressure Switch Valve 2

IFL Control
IFR Control
Inlet valve FL
Inlet valve FR
Inlet valve RL
Inlet valve RR
IRL Control
IRR Control
Motor
Motor Control
OFL Control
OFR Control
ORL Control
ORR Control
Outlet valve FL
Outlet valve FR
Outlet valve RL
Outlet valve RR
Pump
Rear left valve (IN)
Rear left valve (IN) (3 Channel : Rear valve IN)
Rear Left Valve (inlet)
Rear Left Valve (Input)
Rear left valve (OUT)
Rear left valve (OUT) (3 Channel : Rear valve OU)
Rear Left Valve (outlet)
Rear Left Valve (Output)
Rear right valve (IN)
Rear right valve (IN) (3 Channel : not supported)
Rear Right Valve (inlet)
Rear Right Valve (Input)
Rear right valve (OUT)
Rear right valve (OUT) (3 Channel : not supporte)
Rear Right Valve (outlet)
Rear Right Valve (Output)
SIS disable (safety software)
Speed limit disable
Speed limit disable (for Vveh > 10km/h)
Speed limit disable (for Vveh >= 10km/h)
Speed limit disable (for Vveh ≥ 10km/h)
TC Front Left right (TCL)
TC Front Left Valve (TCL)
TCS FL Valve Control
TCS FR Valve Control
TCS Front Left Valve
TCS front left valve (Traction valve (TCL))
TCS front left valve (TRACTION VALVE(TCL))
TCS Front Left Valve : TCL
TCS Front Right Valve
TCS front right valve (Traction valve (TCR))

TCS front right valve (TRACTION VALVE(TC

TCS Front Right Valve : TCR
TCS primary valve
TCS secondary valve
Traction Control Valve 1
Traction Control Valve 2
Valves and Motor Control

AHB

Apply Valve Solenoid #1
Apply Valve Solenoid #2
Cut Valve Solenoid
Motor
Release Valve Solenoid #2
Release Valve Solenoid#1

ECS

Actuator control – hard/soft (hard)
Actuator control – soft/hard (soft)
Actuator control – soft/soft (medium)

EHPS

Actuator Test

EPB

Control Motor by Force Input
Latching and Mounting Position
Unjam Motor

ESP

ASV Front Left Valve
ASV front right valve
Disable the valve relay shutdown
Disable valve relay shutdown
Electric shuttle valve (ESV-L)
Electric shuttle valve (ESV-R)
ELECTRIC SHUTTLE VALVE(ESV-L)
ELECTRIC SHUTTLE VALVE(ESV-R)
ESP specific valve HSV1
ESP specific valve HSV1 (not available for A
ESP specific valve HSV2
ESP specific valve HSV2 (not available for A
ESP specific valve USV1
ESP specific valve USV1 (not available for A
ESP specific valve USV2
ESP specific valve USV2 (not available for A
ESS Brake Lamp Relay
Front left valve (IN)
Front Left Valve (Input)
Front left valve (OUT)
Front Left Valve (Output)
Front right valve (IN)

Front Right Valve (Input)
 Front right valve (OUT)
 Front Right Valve (Output)
 Inlet valve FL
 Inlet valve FR
 Inlet valve RL
 Inlet valve RR
 Motor
 Outlet valve FL
 Outlet valve FR
 Outlet valve RL
 Outlet valve RR
 Pump
 Rear left valve (IN)
 Rear left valve (IN) (3 Channel : Rear valve IN)
 Rear Left Valve (Input)
 Rear left valve (OUT)
 Rear left valve (OUT) (3 Channel : Rear valve OU)
 Rear Left Valve (Output)
 Rear right valve (IN)
 Rear right valve (IN) (3 Channel : not supported)
 Rear Right Valve (Input)
 Rear right valve (OUT)
 Rear right valve (OUT) (3 Channel : not supporte)
 Rear Right Valve (Output)
 SIS disable (safety software)
 Speed limit disable (for Vveh > 10km/h)
 Speed limit disable (for VVeh >= 10km/h)
 Speed limit disable (for Vveh ≥ 10km/h)
 TCS Front Left Valve
 TCS front left valve (Traction valve (TCL))
 TCS front left valve (TRACTION VALVE(TCL))
 TCS Front Right Valve
 TCS front right valve (Traction valve (TCR))
 TCS front right valve (TRACTION VALVE(TCR))

TCS

ASV front left valve
 ASV Front Right Valve
 ASV1
 ASV2
 Disable the valve relay shutdown
 Disable valve relay shutdown
 Electric shuttle valve (ESV-L)
 Electric shuttle valve (ESV-R)
 ELECTRIC SHUTTLE VALVE(ESV-L)
 ELECTRIC SHUTTLE VALVE(ESV-R)
 ESP specific valve HSV1
 ESP specific valve HSV1 (not available for ABS)
 ESP specific valve HSV2
 ESP specific valve HSV2 (not available for ABS)
 ESP specific valve USV1
 ESP specific valve USV1 (not available for ABS)

ESP specific valve USV2
 ESP specific valve USV2 (not available for ABS)
 ESS Brake Lamp Relay
 Front left valve (IN)
 Front Left Valve (Input)
 Front left valve (OUT)
 Front Left Valve (Output)
 Front right valve (IN)
 Front Right Valve (Input)
 Front right valve (OUT)
 Front Right Valve (Output)
 Inlet valve FL
 Inlet valve FR
 Inlet valve RL
 Inlet valve RR
 Motor
 Outlet valve FL
 Outlet valve FR
 Outlet valve RL
 Outlet valve RR
 Pump
 Rear left valve (IN)
 Rear left valve (IN) (3 Channel : Rear valve IN)
 Rear Left Valve (Input)
 Rear left valve (OUT)
 Rear left valve (OUT) (3 Channel : Rear valve OU)
 Rear Left Valve (Output)
 Rear right valve (IN)
 Rear right valve (IN) (3 Channel : not supported)
 Rear Right Valve (Input)
 Rear right valve (OUT)
 Rear right valve (OUT) (3 Channel : not supporte)
 Rear Right Valve (Output)
 SIS disable (safety software)
 Speed limit disable (for Vveh > 10km/h)
 Speed limit disable (for VVeh >= 10km/h)
 Speed limit disable (for Vveh ≥ 10km/h)
 TC Front Left right (TCL)
 TC Front Left Valve (TCL)
 TC Front right Valve (TCL)
 TCS Front Left Valve
 TCS front left valve (Traction valve (TCL))
 TCS front left valve (TRACTION VALVE(TCL))
 TCS Front Right Valve
 TCS front right valve (Traction valve (TCR))
 TCS front right valve (TRACTION VALVE(TCR))
 USV1
 USV2

TPMS

AGC Select Output, requires security level 3.
 All Lamps
 All LEDs

All LEDs, requires security level 1.
 Buffered Micro' clock output
 Diagnostic Lamp
 Diagnostic LED
 Front
 Front Left LF Initiator
 Front Left Location Lamp
 Front Left Location LED
 Front Left Location LED, requires security le
 Front Right Initiator
 Front Right Location Lamp
 Front Right Location LED
 Front Right Location LED, requires security
 LF Initiator DC Supply, requires security lev
 LF Initiator Supply
 LPW LED, requires security level 1.
 MIL LED, requires security level 1.
 Rear
 Rear Left initiator
 Rear Left initiator (negative response)
 Rear Left Location Lamp
 Rear Left Location LED
 Rear Left Location LED, requires security le
 Rear Right Initiator
 Rear Right Location Lamp
 Rear Right Location LED
 Rear Right Location LED, requires security l
 TREAD Lamp
 TREAD LED