

Glossary of terms relating to electronic systems and parts for automobiles

1. Scope

This standard specifies the terms relating to the electronic systems and parts for automobiles (referred to as "terms" hereinafter).

Remarks:

The terms for the diagnosis and sensors shall be specified in the following standards.

JASO D 803 Glossary of terms relating to diagnosis for electronic systems of automobiles

JASO D 804 Glossary of terms relating to sensors for automobiles

2. Classification

Classification of the terms shall comply with **Table 1**.

Table 1 System and classification

Large classification	Intermediate classification
0. Integrated control	
1. Powertrain control	1.1 Engine system 1.2 Transmission system
2. Chassis control	2.1 Steering system 2.2 Suspension system 2.3 Brake system
3. Body control	3.1 Safety 3.2 Comfort 3.3 Convenience 3.4 Alarm
4. Information & communication	4.1 Exterior information 4.2 In-vehicle communication 4.3 Entertainment
5. Actuator & electronic control unit	5.1 Actuator 5.2 Devices and elements
6. Electromagnetic-resistant environment	6.1 Environment (general) 6.2 Measurement and test 6.3 Related parts and materials
7. Software	
8. Reliability	
9. Other related terms	

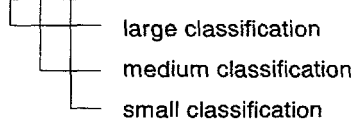
3. Numbers, terms and definitions

The numbers, terms and definitions shall be as follows.

Remarks:

1. The words marked with [] in the "Term" and "English equivalent" shall be usually omitted.
2. The English equivalent and the customary term corresponding to the term shall be given for reference. The customary term will be used as less frequently as possible in future.
3. The number of the terms cited from other standards is indicated as follows.

Reference (1. 1 - 1)



0. Integrated control

No.	Term	Definition	Reference		
			English equivalent	Customary term	Related standards
0001	sharyô sôgô seigyo 車両総合制御	To cooperatively control an engine, a transmission, a brake, a suspension, etc. so as to improve the dynamic performance of a vehicle according to the traveling condition such as the vehicle speed, the roll and the pitching of the vehicle and the environmental condition such as the road surface change.	vehicle dynamics control	sôgô seigyo	

1. Powertrain control

1.1 Engine system

No.	Term	Definition	Reference		
			English equivalent	Customary term	Related standards
Reference (1.1-1)	denshi seigyo kikaki 電子制御気化器	A carburetor to control the air-fuel ratio by an electronic circuit.	electronic controlled carburetor		JIS B 0110 JIS D 0108
1101	denshi-shiki nenryô funsha sôchi 電子式燃料噴射装置	A system to control the fuel injection amount, the injection timing, etc. to the prescribed value based on the information on the running condition of the engine detected by various sensors.	electronic fuel injection system		
Reference (1.1-2)	kûnenhi fîdobakku seigyo 空燃比フィードバック制御	To automatically control the air-fuel ratio by detecting the oxygen content, etc. in the exhaust gas.	feedback control of air-fuel ratio		JIS B 0108 JIS D 0108
1102	kûnenhi gakushû seigyo 空燃比学習制御	Control to change the control quantity, etc. so as to adapt to the target air-fuel ratio based on the past control experiences.	learning control of air-fuel ratio		
Reference (1.1-3)	denshi seigyo tenka sôchi 電子制御点火装置	An ignition system to control the ignition timing by an electronic circuit.	electronic ignition system		JIS B 0110
1103	nokku seigyo sôchi ノック制御装置	A system to suppress the knocking of an engine and obtain the optimum ignition timing by controlling the ignition timing according to the signal from a knocking detecting means.	knock control system		
1104	aidoringu kaitensû seigyo sôchi アイドリング回転数制御装置	A system to control the idle speed by opening/closing a throttle valve, increasing/decreasing the fuel amount, opening/closing a bypass valve, etc. according to the coolant temperature, the electric loads, the engine loads, etc.	engine idle speed control system	aidoru kontorôra	
Reference (1.1-4)	haikigasai saijunkan sôchi 排気ガス再循環装置	A system to suppress the generation of NO _x by mixing a part of the exhaust gas in the intake air. Abbreviated as an EGR system (exhaust gas recirculation system).	exhaust gas re-circulation system, EGR system		JIS B 0110 JIS D 0108
Reference (1.1-5)	denshi seigyo EGR sôchi 電子制御EGR装置	An EGR system to control the EGR gas amount according to the running condition of an engine by using an electronic control circuit.	electronic controlled EGR system		JIS D 0108

1.1 Engine system (Continued)

No.	Term	Definition	Reference		
			English equivalent	Customary term	Related standards
1105	denshi-shiki tâbo châja 電子式ターボチャージャー	A turbo-charger with the function to adjust the opening of each valve and suppress the boost pressure according to the running condition of an engine.	electronic turbo-charger		
1106	kyûki seigyo sôchi 吸気制御装置	A system to control the intake air amount, the intake timing, the boost pressure, etc. according to the running condition of an engine.	intake air control system		
1107	kahen kyûki seigyo 可変吸気制御	To control the intake air amount and the intake timing by switching the length or the diameter of an intake pipe according to the running condition of an engine.	variable induction control		
1108	kahen barubu taimingu seigyo 可変バルブタイミング制御	To control the valve timing and the valve lift quantity according to the running condition of an engine.	variable valve timing control		
1109	rîn bân seigyo リーンバーン制御	To control the running condition of an engine in the air-fuel ratio in the lean region from the theoretical air-fuel ratio.	lean burn control		
1110	nen-atsu seigyo sôchi 燃圧制御装置	A system to control the fuel injection amount by adjusting the fuel pressure in the fuel piping or in the fuel injection valve.	fuel pressure control system		
1111	dîzeru gurô seigyo sôchi ディーゼルグロー制御装置	A system to control the energizing current, the energizing time, etc. to a glow plug of a diesel engine according to the coolant temperature, the temperature of the glow plug, etc.	diesel glow control system		
1112	haikiryô seigyo sôchi 排気量制御装置	A system to stop the specific cylinders by stopping the working of the fuel supply or an intake and exhaust valve according to the load condition of an engine, or to change the exhaust amount by changing the stroke of the valve.	engine displacement control system		

1.1 Engine system (Continued)

No.	Term	Definition	Reference		
			English equivalent	Customary term	Related standards
1113	denshi-shiki dizeru nenryô funsha sôchi 電子式ディーゼル燃料噴射装置	A system to control the optimum injection amount and the injection timing with a governor actuator, etc. to improve the power performance, the purification of the exhaust gas, and the fuel economy, and drivability. A system is inputted the signals from an accelerator stroke sensor, a fuel injection timing sensor, an intake pressure sensor, a water temperature sensor, etc., detect the running condition of an engine, operate the required fuel injection amount and the fuel injection timing of the engine by the ECU.	electronic diesel injection system		

1.2 Transmission system

No.	Term	Definition	Reference		
			English equivalent	Customary term	Related standards
1201	denshi-shiki toransu-misshon 電子式トランスミッション	A transmission to control the switching of the gear change position, timing and pattern of the transmission, the starting and releasing of the lock-up, etc. according to the vehicle speed, the engine speed, the throttle position, the shift position, etc.	electronic transmission	denshi torukon	
1202	ôbâdoraibu seigyo sôchi オーバードライブ制御装置	A system to automatically switch a transmission to an over drive gear according to the running condition of a vehicle.	over drive control system		
1203	rokku-appu seigyo ロックアップ制御	To control a lock-up clutch to directly connect the engine driving force without through a torque converter according to the vehicle speed, the throttle position, the engine speed, etc.	lock-up clutch control		
Reference (1.2-1)	engin toroku seigyo エンジントルク制御	To reduce the output torque of an engine by judging the traveling condition of a vehicle by a computer based on the input signal from various sensors, etc., and controlling the ignition timing of the engine during the gear change.	engine torque control		JASO C-802
1204	yonrin kudô seigyo sôchi 四輪駆動制御装置	A system to control the distribution of the driving force from an engine to fore and rear wheels according to the traveling condition.	four wheel drive control system		

1.2 Transmission system (Continued)

No.	Term	Definition	Reference		
			English equivalent	Customary term	Related standards
1205	denshi-shiki sadô sôchi 電子式差動装置	A system to control the driving force from an engine to be distributed from a differential gear system to right and left wheels according to the rotating condition of the right and left wheels.	electronic differential gear system		
1206	denshi seigyo sadô seigen sôchi 電子制御差動制限装置	A system to change the distribution of the right and left wheels by controlling the limited slip differential according to the traveling condition and the driving operation of the vehicle, such as the vehicle speed, the difference between the right and left driving wheel speed, the throttle position, etc.	electronic control limited slip differential system		
1207	denshi seigyo defurokku 電子制御デフロック	A system to prohibit or automatically release the locking operation of a differential device of right and left wheels according to the vehicle speed, the difference between the right and left wheel speed.	electronic control differential lock		
1208	denshi-shiki mudan hensoku sôchi 電子式無段変速装置	A system to continuously change the transmission gear ratio according to the vehicle speed, the accelerator operation amount, the throttle position, the engine speed, etc.	electronic continuously variable transmission system, CVT		
1209	denshi-shiki kuracchi 電子式クラッチ	A clutch to automatically achieve the clutching according to the running condition of the vehicle speed, the accelerator operation amount, the throttle position, etc.	electronic clutch		
1210	denji [funtai] kuracchi 電磁 [粉体] クラッチ	A clutch to transmit the power by providing the chain-like connection of the electromagnetic powder by the magnetic force generated by energizing a solenoid.	electro-magnetic (powder) clutch		

2. Chassis control

2.1 Steering system

No.	Term	Definition	Reference		
			English equivalent	Customary term	Related standards
2101	denshi-shiki pawâ sutearingu 電子式パワーステアリング	Power steering to change the operating force by using an electric means according to the vehicle speed, the engine speed, the steering angle, etc.	electronic power steering	denshi pawasute	
2102	denki-shiki pawa sutearingu 電気式パワーステアリング	Power steering to directly control a steering gear using a motor to make the operating force variable according to the vehicle speed, the engine speed, the steering angle, etc.	electric power steering	denki pawasute	
2103	denshi-shiki yonrin sôda sôchi 電子式四輪操舵装置	A system to steer rear wheels in the same or reverse phase according to the vehicle speed, the steering angle, the steering angular velocity, the yaw rate, etc. in the fore and rear wheels steering function.	electronic four wheel steering system	yonrin sutea-ring	

2.2 Suspension system

No.	Term	Definition	Reference		
			English equivalent	Customary term	Related standards
2201	denshi-shiki sasupenshon 電子式サスペンション	A suspension to control either of the spring constant of the suspension, the damping force of a shock absorber, the posture of a vehicle body and the vehicle height according to the running condition such as the vehicle speed, the steering angle, and the vertical acceleration of the vehicle body and the road condition.	electronic suspension	densi sas	
2202	akutibu sasupenshon アクティブサスペンション	A suspension to actively control the spring constant of the suspension, the damping force, the posture of the vehicle body, etc. by supplying the energy from the outside according to the traveling condition such as the loads, the road condition and the vehicle speed.	active suspension		
2203	shisei seigyô 姿勢制御	To adjust the spring height, etc. and control the vehicle height above the ground, the tiltation of the vehicle body according to the loads, vehicle speed, etc.	vehicle posture control	shatai seigyô	

2.2 Suspension system (Continued)

No.	Term	Definition	Reference		
			English equivalent	Customary term	Related standards
2204	shakô seigyo 車高制御	To control the vehicle height above the ground by changing the control constants such as the spring length of the vehicle body, the axle position, etc. according to the vehicle speed and the road condition.	height control, level control	shakô chôsei	

2.3 Brake system

No.	Term	Definition	Reference		
			English equivalent	Customary term	Related standards
2301	anchi-rokku sôchi アンチロック装置	A system to automatically control the rotational slip of one or more wheels by braking.	anti-lock device, anti-lock braking system, ABS	sukiddo seigyo sôchi, anchi sukiddo seigyo sôchi	
2302	torakushon seigyo sôchi トラクション制御装置	A system to control the number of revolutions of the driving wheels in the starting or acceleration.	traction control system		
2303	denshi-shiki jidô burêki seigyo sôchi 電子式自動ブレーキ制御装置	A system to detect the traveling condition and the dangerous situation such as the approach to an obstacle on the road by various sensors, and automatically apply the brake without the braking operation by a driver.	electronic automatic braking system		

3. Body control

3.1 Safety

No.	Term	Definition	Reference		
			English equivalent	Customary term	Related standards
3101	teisoku sôkô sôchi 定速走行装置	A system capable of traveling by automatically keeping the preset vehicle speed without operating the accelerator pedal.	cruise control system. vehicle speed control system	shasoku seigyo sôchi	
3102	shakan kyori seigyo sôchi 車間距離制御装置	A system to measure the distance between the vehicle and another vehicle traveling in front and control an accelerator and a brake so as to keep the distant constant.	car following control system		
3103	tsuitotsu bôshi keihô sôchi 追突防止警報装置	A system to detect a vehicle or an obstacle in front and output the alarm in the case of any collision from the degree of approach.	collision warning system		
3104	ranpu seigyo sôchi ランプ制御装置	A system to detect the brightness outside a vehicle or the light of a head lamp of an oncoming vehicle by optical sensor and achieve the turning on/off, the dimming, the beam switching, etc. of a head lamp of the vehicle.	light control system		
3105	heddo-ranpu reberingu shisutemu ヘッドランプレベリングシステム	A system to adjust the optical axis of a head lamp which is changed by the number of occupants and the loads.	headlamp leveling system		
3106	bôgen mirâ 防眩ミラー	A mirror to change the ratio of reflection according to the incident light amount on the mirror surface, the brightness outside the vehicle. Methods of the electronic chemical element, the liquid crystal, etc. are available.	anti-glare mirror		
3107	kôhō shôgaibutsu kenshutsuki 後方障害物検出器	A system to detect an object which is present behind a vehicle by using the beam, the ultrasonic wave, the electromagnetic wave, etc., and provide the alarm or display.	rear obstacle detector		
Reference (3.1-1)	ea-baggu [shisutemu] エアバッグ 〔システム〕	A kind of automatic occupant protecting devices to absorb the kinetic energy of the occupants by a bag inflated with the high pressure gas, the gas generating agent, etc. in the collision to reduce the injuries caused by the secondary collision.	air bag system, airbag		JASO B 803

3.1 Safety (Continued)

No.	Term	Definition	Reference		
			English equivalent	Customary term	Related standards
3108	jidô shîto beruto 自動シートベルト	A seat belt to detect the opening /closing of a door, the seating of occupants, etc. and automatically achieve the attachment/detachment of the seat belt.	automatic seat belt		
3109	shîto beruto yô purirôda シートベルト用プリローダ	A system to secure the safety of occupants by forcibly coiling a seat belt in the collision.	preloader, pretensioner		
3110	hasamare bôshi dendô uindô 挟まれ防止電動ウインド	A power window having the function to detect that a person or an object is held when the window is elevated, and stop the elevation of the window or lower the window.	safety autostop power window		
3111	untên shien shisutemu 運転支援システム	A system to improve the safety, convenience and the comfortability by supporting the abilities of the perception, recognition, judgement and operation of a driver, and reducing the loads for driving.	driving support system		

3.2 comfortability

No.	Term	Definition	Reference		
			English equivalent	Customary term	Related standards
3201	kûchô seigyo sôchi 空調制御装置	A system to control an air conditioning system and keep the temperature in the cabin at the preset condition according to the temperature outside the vehicle, the quantity of the solar radiation, etc.	climate control system, air conditioning system		
3202	kûki seijô sôchi 空気清浄装置	A system to remove wastes, dust, etc. in a cabin and purify the air.	air purifier		

3.3 Convenience

No.	Term	Definition	Reference		
			English equivalent	Customary term	Related standards
3301	doa-rokku seigyoki ドアロック制御器	A system to start an actuator and achieve the locking/unlocking by the operation of a driver or the signal from a vehicle speed sensor, etc.	door lock controller		

3.3 Convenience (Continued)

No.	Term	Definition	Reference		
			English equivalent	Customary term	Related standards
3302	kîresu entori キーレスエントリ	A system to achieve the locking/unlocking without inserting a key into a keyhole of a door.	keyless entry system		
3303	rimokon sôchi リモコン装置	A system capable of opening/closing a door lock, operating an AV equipment, starting an engine from a remote place by using the infrared wave or the radio wave, etc.	remote control system		
3304	sôkô jôhō hyôji sôchi 走行情報表示装置	A system to intensively display the information required for the driving such as the vehicle speed, the traveling distance, the fuel consumption, the gear shift position, the fuel residual amount, etc.	driver information system		
3305	disupurei sôchi ディスプレイ装置	A display unit to visually obtain the amount of the information. The contents of the display include the character, the numerical, the graph, the picture, etc.	display unit, display	hyôji sôchi, hyôji ban	
3306	heddo-appu disupurei ヘッドアップディスプレイ	A display unit to reduce the movement of the driver's eyes by displaying the information on a windshield glass.	head up display		
3307	denshi-shiki chiruto sutureingu 電子式チルトステアリング	Steering to automatically adjust a steering wheel to the preliminarily stored position according to the getting on/off of a driver and the reproductive operation.	electronic tilt steering		
3308	memori pawâ shîto メモリパワーシート	A power seat to detect and store the adjusting position by various sensors of the power seat, and be automatically adjusted to the set position by the reproductive operation.	memory position control power seat		
3309	waipâ seigyoki ワイパー制御器	A system to control the starting/stopping timing, the intermittent time for the wiping operation, the wiping speed, etc. of the wiper.	wiper controller		
3310	memori mirâ メモリミラー	A mirror to detect and store the adjusting position by various sensors, and be automatically adjusted to the set position by the reproductive operation.	memory position control power mirror		
3311	onsei ninshiki sôchi 音声認識装置	A system to recognize the human voices, and control the system to the contents.	voice recognition system		

3.4 Alarms

No.	Term	Definition	Reference		
			English equivalent	Customary term	Related standards
3401	onsei keihôki 音声警報器	A system to detect an abnormal condition or inappropriate operation of a vehicle, and inform a driver thereof by the voice.	voice alarm		
3402	kî nukiwasure keihôki キー抜き忘れ警報器	A system to detect the condition that the engine is stopped, and a driver gets off the vehicle with an ignition key being inserted in a key cylinder, and to give the alarm by a buzzer, the sound, a lamp, etc.	ignition key reminder		
3403	ranpu dansen keihô injikêta ランプ断線警報インジケータ	A system to indicate the disconnection of a head lamp, a tail lamp, a stop lamp, etc.	electric bulbs burn-out indicator		
3404	ranpu keshiwasure keihôki ランプ消し忘れ警報器	A system to give an alarm when an ignition key is drawn out of a key cylinder or a driver gets off the vehicle with a head lamp being lit.	light reminder, light reminded alarm		
3405	shîto-beruto shimewasure keihôki シートベルト締め忘れ警報器	A system to inform that a driver is driving a vehicle without wearing a seat belt.	seat belt reminder		
3406	han-doa keihôki 半ドア警報器	A system to inform that either of doors is not completely closed.	door ajar alarm		
3407	maruchi infomêshon shisutemu マルチインフォメーションシステム	A system to visually and audibly inform a driver of multi information by using a display device, an indicator lamp, a buzzer, a speaker, etc.	multi information system		
3408	tônan bôshi sôchi 盗難防止装置	A system to detect the illegal invasion into a vehicle or the illegal removal of the parts therefrom by various sensors or logical circuits, and give the alarm or immobilize the traveling of the vehicle, or stop a part of or total functions of the removed parts.	anti-theft system, theft protection system, theft deterrent system, vehicle alarm system		
3409	imobiraiza shisutemu イモビライザシステム	An anti-theft system to prevent the traveling of a vehicle by a mechanical or electrical means. The traveling of the vehicle is generally prevented by stopping the starting of the engine.	immobilizer system		

4. Information and communication

4.1 Exterior information

No.	Term	Definition	Reference		
			English equivalent	Customary term	Related standards
4101	jidôsha denwa 自動車電話	An on-board telephone capable of vehicle-to-vehicle communication and vehicle-to ground communication by the radio wave through the ground relay facility, the artificial satellite or the like.	automobile telephone		
4102	roshakan tsûshin 路車間通信	To transmit or receive various information using the radio wave or the like between the transmitter and the receiver which are respectively installed in a vehicle and on the ground.	vehicle roadside communication		
4103	nabigêshon sôchi ナビゲーション装置	A system to guide the map information, the information on the route to the destination, the information of the position of the vehicle, the advancing direction, etc. by the image display or the voice.	navigation system		
4104	GPS	A system to measure the position of the vehicle using an orbital positioning satellite.	global positioning system		
4105	bîkon ビーコン	An equipment to communicate the information on the position or the road traffic from the transmitter on the ground side to vehicles nearby. The communication media include the radio wave (microwave) and the light.	beacon	denpa bîkon, hikari bîkon	

4.2 In-vehicle communication

No.	Term	Definition	Reference		
			English equivalent	Customary term	Related standards
4201	hikari faibâ tsûshin sôchi 光ファイバ通信装置	A communication system of the method to convert the electric signal into the change in the brightness of the light or the optical pulse code, transmit the converted signal through the optical fiber, and convert it into the electrical signal again at the other end.	optical fiber communication system		
4202	shanai LAN 車内LAN	A network between computers in a vehicle.	vehicle local area network		

4.2 In-vehicle communication (Continued)

No.	Term	Definition	Reference		
			English equivalent	Customary term	Related standards
4203	tsûshin nettowâku 通信ネットワーク	Generic term of the media for the communication of the information consisting of the telecommunication circuit and the equipment to connect the terminal to the telecommunication circuit.	network		
Reference (4.2-1)	purotokoru プロトコル	A group of the semantic and syntax rules to determine the action of the functional unit in realizing the communication.	protocol		JIS X-0009

4.3 Entertainment

No.	Term	Definition	Reference		
			English equivalent	Customary term	Related standards
4301	denshi dôchô rajio 電子同調ラジオ	A radio to achieve the electronic tuning using the solid element such as the diode of variable capacity where the capacity is changed by the voltage without using a movable parts such as a variable capacitor.	electronic tuning radio		
4302	kasetto ôdio sôchi カセットオーディオ装置	A system to realize the recording and reproduction using a cassette type magnetic tape where the voice is standardized.	cassette tape audio system		
4303	dejitaru ôdio sôchi デジタルオーディオ装置	A system to reproduce the original voice with fidelity by restoring the digital-coded voice waveform to the original analog voice waveform through a digital-analog conversion circuit.	digital audio system		
4304	dejitaru bideo sôchi デジタルビデオ装置	A video system to record and reproduce the digital-coded image information and voice waveform.	digital video system		
4305	AV sôchi AV 装置	Generic term of the audio equipment and the video equipment.	audio visual system		