
OUTLINE OF CHANGES

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HOW TO READ THE WIRING DIAGRAMS

Name	Reference Page	Description of changes
MODELS	1-2	The model configuration has been changed to correspond to the addition of new vehicle models.
ABBREVIATION SYMBOLS	1-2	New abbreviation symbol definitions have been added to correspond to the addition of a variable geometry turbocharger.

WIRING HARNESS CONFIGURATION DIAGRAMS

Connector Symbol	Name		Reference Page	Description of changes
A	ENGINE COMPARTMENT	4G6	2-2	- The following connectors have been added to correspond to the addition of an emission regulation step III-compatible 4G64 engine and the addition of an automatic air conditioner system. - Crank angle sensor (A-109) - Ambient temperature sensor (A-110) - Ignition coil 2 (A-111) - Camshaft position sensor (A-112) - The following connectors have been removed to correspond to the addition of an emission regulation step III-compatible 4G64 engine. - Engine coolant temperature switch <A/T> (A-43) - Starter relay (A-52X) - Noise filter (A-62) - Noise filter (A-63) - Distribution assembly (A-72) - The number of pins on the A/C wiring harness and front wiring harness combination connector <A/C> (A-14) has been changed from 6 to 10, and the connector colour has been changed from blue to black. - The name of the ignition coil connector (A-65) has been changed to the ignition coil 1 connector. - The number of pins on the power transistor connector (A-70) has been changed from 3 to 8.
		4D56-step III <L.H. drive vehicles>	2-6	New wiring harness configuration diagrams have been established to correspond to the addition of an emission regulation step III-compatible 4D56 engine.
		4D56-step III <R.H. drive vehicles>	2-10	
	B	TRANSMISSION	—	—

Connector Symbol	Name		Reference Page	Description of changes
C	DASH PANEL	L.H. drive vehicles	2-14	- The following connectors have been added to correspond to the addition of an emission regulation step III-compatible 4G64 and 4D56 engine and the addition of an automatic air conditioner system. - Body wiring harness and front wiring harness combination <Diesel-step III> (C-19) - A/C-ECU (C-111), (C-112) - Thermostat <Automatic A/C> (C-113) - Outside / Inside air selection damper control motor (C-114) - Body wiring harness and front wiring harness combination <Diesel-step III> (C-115) - Blower high speed relay (C-116) - Power transistor (C-117) - Photo sensor (C-118) - Heater water temperature sensor (C-119) - Air mixing damper control motor and potentiometer (C-120) - Mode selection damper control motor and potentiometer (C-121) - Accelerator pedal position sensor (C-122) - The name of the A/C switch connector (C-10) has been changed to the A/C switch connector <Manual A/C>. - The name of the blower switch connector (C-12) has been changed to the blower switch connector <Manual A/C>. - The number of pins on the body wiring harness and front wiring harness combination connector <Petrol> (C-19) has been changed from 18 to 22. - A <Diesel-step III> qualifier has been added to the body wiring harness and front wiring harness combination connector <Diesel> (C-19). - The name of the thermostat connector (C-46) has been changed to the thermostat connector <Manual A/C>. - The <Petrol> qualifier for the engine-ECU connectors (C-50), (C-51) and (C-97) has been abolished. - The <Petrol> qualifier for the engine control relay connector (C-53) has been abolished. - The <Diesel> qualifier for the intercooler fan-ECU connector has been changed to <Diesel-step II>.
		R.H. drive vehicles	2-18	- The following connectors have been added to correspond to the addition of an emission regulation step III-compatible 4D56 engine. - Engine-ECU (C-50), (C-51), (C-97), - J/C (4) (C-95) - Diagnosis connector (2) (C-101)

Connector Symbol	Name		Reference Page	Description of changes
C	DASH PANEL	R.H. drive vehicles	2-18	- Body wiring harness and front wiring harness combination <Diesel-step III> (C-115) - Accelerator pedal position sensor (C-122) - The name of the diagnosis connector (C-35) has been changed to the diagnosis connector (1). - The name of the glow-ECU connector (C-49) has been changed to the engine-ECU or glow-ECU connector.
D	CABIN	Club cab	–	A <Diesel> qualifier has been added to the body wiring harness and frame wiring harness combination connector (D-02), and the body wiring harness and frame wiring harness combination connector <Petrol> (D-02) (22) has been added.
		Double cab	–	
F	FRAME	–	2-22	- The following connectors have been added to correspond to the addition of an emission regulation step III-compatible 4G64 engine and the addition of a high-mounted stop lamp. - Rear body wiring harness and gate wiring harness combination (F-18) - High-mounted stop lamp (F-19) - Oxygen sensor (rear) <Petrol> (F-20)

SINGLE PART INSTALLATION POSITION

Location of changes	Reference Page	Description of changes
RELAY	3-2	A blower high speed relay has been added to correspond to the addition of an automatic air conditioner system.
ECU	3-2	An A/C-ECU has been added to correspond to the addition of an automatic air conditioner system.
SENSOR	3-3	- The following sensors have been added to correspond to the addition of emission regulation step III-compatible 4G64 and 4D56 engines and the addition of an automatic air conditioner system. - Accelerator pedal position sensor <Diesel-step III> - Air thermo sensor <Automatic A/C> - Ambient temperature sensor <Automatic A/C> - Boost air temperature sensor <Diesel-step III> - Camshaft position sensor <Petrol> - Control sleeve position sensor <Diesel-step III> - Crank angle sensor <Diesel-step III> - Crank angle sensor <Petrol> - EGR position sensor <Diesel-step III> - Engine coolant temperature sensor <Diesel-step III> - Fuel temperature sensor <Diesel-step III> - Heater water temperature sensor <Automatic A/C> - Oxygen sensor <Petrol> - Photo sensor <Automatic A/C> - Rotation sensor (back-up) <Diesel-step III> - Timer piston position sensor <Diesel-step III> - VG control pressure sensor <Diesel-step III>

Location of changes	Reference Page	Description of changes
SOLENOID VALVE	3-6	- The following solenoid valves have been added to correspond to the addition of an emission regulation step III-compatible 4D56 engine. - Fuel cut solenoid valve <Diesel-step III> - Governor actuator <Diesel-step III> - Throttle solenoid valve <Diesel-step III> - Timing solenoid valve <Diesel-step III> - VGT solenoid valve <Diesel-step III>

CIRCUIT DIAGRAMS

Main title	Sub title	Reference Page	Description of changes
JOINT CONNECTOR (J/C)	Except diesel-powered vehicles <Step II>	4-3	A new circuit has been established to correspond to the addition of emission regulation step III-compatible 4G64 and 4D56 engines.
CENTRALIZED JUNCTION	–	–	- The engine control system and immobilizer system have been added to the circuits which use fusible link 2. - The following load circuits have been added to multi-purpose fuse 7. - A/C-ECU - Blower high speed relay - Condenser fan relay - Rear differential lock-ECU 4WD indicator-ECU
POWER DISTRIBUTION SYSTEM	L.H. drive vehicles	4-6	Special circuits for '02 models have been added.
	R.H. drive vehicles	4-12	
STARTING SYSTEM	–	4-18	
IGNITION SYSTEM	–	4-19	The circuit has been changed to correspond to the addition of an emission regulation step III-compatible 4G64 engine.
ENGINE CONTROL SYSTEM	Petrol-powered vehicles	4-20	A new circuit has been established to correspond to the addition of emission regulation step III-compatible 4G64 engines.
	Diesel-powered vehicles	4-26	A new circuit has been established to correspond to the addition of emission regulation step III-compatible 4D56 engines.
OVERDRIVE CONTROL SYSTEM	4D56	4-34	The circuit has been changed to correspond to the addition of an emission regulation step III-compatible 4D56 engine.
HEADLAMP	R.H. drive vehicles <Except diesel-powered vehicles (Step II)>	4-38	New circuits have been established to correspond to changes to J/C (1) and J/C (2).
TAIL LAMP, POSITION LAMP AND LICENCE PLATE LAMP	L.H. drive vehicles <Except diesel-powered vehicles (Step II)>	4-40	New circuits have been established to correspond to changes to J/C (1) and to the body wiring harness and frame wiring harness combination connector (D-02).
	R.H. drive vehicles <Except diesel-powered vehicles (Step II)>	4-42	
REAR FOG LAMP	L.H. drive vehicles	4-44	The circuit has been changed to correspond to changes to the body wiring harness and frame wiring harness combination connector (D-02).
TURN-SIGNAL LAMP AND HAZARD WARNING LAMP	–	4-48	
STOP LAMP	–	4-50	The circuit has been changed to correspond to the addition of a high-mounted stop lamp and to changes to the body wiring harness and frame wiring harness combination connector (D-02).
BACK-UP LAMP	–	4-51	The circuit has been changed to correspond to changes to the body wiring harness and frame wiring harness combination connector (D-02).

Main title	Sub title	Reference Page	Description of changes
METER AND GAUGE	–	4-52	The circuit has been changed to correspond to the addition of an emission regulation step III-compatible 4G64 and 4D56 engine.
BRAKE WARNING LAMP	–	4-56	
FUEL WARNING LAMP	Vehicles without SRS	4-56	
OIL PRESSURE WARNING LAMP	–	4-57	
FUEL FILTER WARNING LAMP	Diesel-powered vehicles	4-57	
CENTRAL DOOR LOCKING SYSTEM	Vehicles with keyless entry system	4-58	The circuit has been changed to correspond to changes to the body wiring harness and frame wiring harness combination connector (D-02).
MANUAL AIR CONDITIONER	Except diesel-powered vehicles <Step II>	4-66	A new circuit has been established to correspond to the addition of emission regulation step III-compatible 4G64 and 4D56 engines.
AUTOMATIC AIR CONDITIONER	–	4-70	A new circuit has been established to correspond to the addition of an automatic air conditioner system.
ANTI-SKID BRAKING SYSTEM (ABS)	Except diesel-powered vehicles <Step II>	4-76	A new circuit has been established to correspond to the addition of emission regulation step III-compatible 4G64 and 4D56 engines.
REAR DIFFERENTIAL LOCK SYSTEM	L.H. drive vehicles	4-82	The circuit has been changed to correspond to changes to the body wiring harness and frame wiring harness combination connector (D-02).
	R.H. drive vehicles	4-84	
PART TIME 4WD SYSTEM	Except diesel-powered vehicles <Step II>	4-86	A new circuit has been established to correspond to the addition of emission regulation step III-compatible 4G64 and 4D56 engines.
	Diesel-powered vehicles <Step II>	4-88	
IMMOBILIZER SYSTEM	Petrol-powered vehicles	4-90	The circuit has been changed to correspond to the addition of an emission regulation step III-compatible 4G64 engine.
	Diesel-powered vehicles <Step III>	4-92	A new circuit has been established to correspond to the addition of emission regulation step III-compatible 4D56 engines.
INTERCOOLER FAN	Diesel-powered vehicles <Step III>	4-94	
FUEL LINE HEATER	Diesel-powered vehicles <Step III>	4-95	

TABLE OF CIRCUIT DIAGRAMS

This table of circuit diagrams indicates those circuits in which changes and/or additions, etc. have been made; the circuit are here listed in the sequence in which they are presented in the wiring diagrams. Please use this table for reference when following maintenance or repair procedures.

NOTE

- (1) A (Added) : This circuit has been newly added.
 (2) R (Revised) : This circuit has been changed.
 (3) D (Deleted) : This circuit has been deleted.
 (4) I (Included) : This circuit is included in the previous manual(s).
 (5) N (Not applicable) : This circuit is not applicable.
 (6) P (Previous manual) : This circuit is not included, because it has not been changed.
 Refer to the previous manual(s).

Main circuit	Circuit classifications	Previous manual: Pub. No. PHTE96E1-B (Basic)	Previous manual: Pub. No. PHTE96E1-C (Supplement)	Previous manual: Pub. No. PHTE96E1-D (Supplement)	Previous manual: Pub. No. PHTE96E1-E (Supplement)	This manual: Pub. No. PHTE96E1-F (Supplement)
JUNCTION BLOCK (J/B)	–	I	P	P	P	P
JOINT CONNECTOR (J/C)	Except diesel-powered vehicles <Step II>	N	N	N	N	A
	Diesel-powered vehicles <Step II>	I	R	R	P	P
CENTRALIZED JUNCTION	–	I	R	R	P	R
POWER DISTRIBUTION SYSTEM	L.H. drive vehicles	I	P	P	P	R
	R.H. drive vehicles	I	P	P	P	R
STARTING SYSTEM	Petrol-powered vehicles	I	P	P	P	N
	Diesel-powered vehicles	I	P	R	P	N
	–	N	N	N	N	A
IGNITION SYSTEM	–	I	P	P	P	R
CHARGING SYSTEM	Petrol-powered vehicles	I	P	P	P	P
	Diesel-powered vehicles	I	P	P	P	P
GLOW SYSTEM	–	I	R	R	P	P
MPI SYSTEM	–	I	R	R	P	N
ENGINE CONTROL SYSTEM	Petrol-powered vehicles	N	N	N	N	A
	Diesel-powered vehicles	N	N	N	N	A
OVERDRIVE CONTROL SYSTEM	4G64	I	R	R	P	N
	4D56	I	R	R	P	R
HEADLAMP	L.H. drive vehicles with daytime running lamp	I	P	P	P	P
	L.H. drive vehicles without daytime running lamp	I	P	P	P	P
	R.H. drive vehicles <Except diesel-powered vehicles (Step II)>	N	N	N	N	A
	R.H. drive vehicles <Diesel-powered vehicles (Step II)>	I	P	P	P	P

Main circuit	Circuit classifications	Previous manual: Pub. No. PHTE96E1-B (Basic)	Previous manual: Pub. No. PHTE96E1-C (Supplement)	Previous manual: Pub. No. PHTE96E1-D (Supplement)	Previous manual: Pub. No. PHTE96E1-E (Supplement)	This manual: Pub. No. PHTE96E1-F (Supplement)
TAIL LAMP, POSITION LAMP AND PLATE LAMP	L.H. drive vehicles <Except diesel-powered vehicles (Step II)>	N	N	N	N	A
	L.H. drive vehicles <Diesel-powered vehicles (Step II)>	I	P	P	P	P
	R.H. drive vehicles <Except diesel-powered vehicles (Step II)>	N	N	N	N	A
	R.H. drive vehicles <Diesel-powered vehicles (Step II)>	I	P	P	P	P
REAR FOG LAMP	L.H. drive vehicles	I	P	P	P	R
	R.H. drive vehicles	I	P	P	P	P
HEADLAMP LEVELING SYSTEM	—	I	P	R	P	P
GLOVE BOX LAMP	—	N	N	A	P	P
ROOM LAMP	Except double cab	I	R	P	P	P
	Double cab	I	R	P	P	P
IGNITION KEY CYLINDER ILLUMINATION LAMP	—	I	P	P	P	P
TURN-SIGNAL LAMP AND HAZARD WARNING LAMP	—	I	P	P	P	R
STOP LAMP	—	I	P	P	P	R
BACK-UP LAMP	—	I	P	P	P	R
HORN	Vehicles with SRS	I	P	P	P	P
	Vehicles without SRS	I	P	P	P	P
METER AND GAUGE	—	I	P	R	P	R
BRAKE WARNING LAMP	—	I	P	R	P	R
FUEL WARNING LAMP	Vehicles without SRS	I	P	R	P	R
OIL PRESSURE WARNING LAMP	—	I	P	R	P	R
FUEL FILTER WARNING LAMP	Diesel-powered vehicles	I	P	R	P	R
MULTI-METER	—	I	P	P	P	P
CENTRAL DOOR LOCKING SYSTEM	Vehicles without keyless entry system <Except double cab>	I	R	P	P	P
	Vehicles without keyless entry system <Double cab>	I	R	P	P	P
	Vehicles with keyless entry system	N	N	N	A	R
POWER WINDOWS	Except double cab	I	P	P	P	P
	Double cab	I	R	P	P	P
HEATER	—	I	P	P	P	P

Main circuit	Circuit classifications	Previous manual: Pub. No. PHTE96E1-B (Basic)	Previous manual: Pub. No. PHTE96E1-C (Supplement)	Previous manual: Pub. No. PHTE96E1-D (Supplement)	Previous manual: Pub. No. PHTE96E1-E (Supplement)	This manual: Pub. No. PHTE96E1-F (Supplement)
MANUAL AIR CONDITIONER	Petrol-powered vehicles	I	P	P	P	N
	Diesel-powered vehicles with M/T <Step II>	I	R	P	P	P
	Diesel-powered vehicles with A/T <Step II>	I	P	P	P	P
	Except diesel-powered vehicles <Step II>	N	N	N	N	A
AUTOMATIC AIR CONDITIONER	–	N	N	N	N	A
REAR HEATER	–	I	P	P	P	P
WIND SHIELD WIPER AND WASHER	L.H. drive vehicles	I	P	P	P	P
	R.H. drive vehicles	I	P	P	P	P
HEADLAMP WASHER	–	I	P	R	P	P
DEFOGGER	–	I	D	N	N	N
DEFOGGER AND DOOR MIRROR HEATER	Vehicles with defogger timer	I	R	P	P	P
	Vehicles without defogger timer	I	R	P	P	P
REMOTE CONTROLLED MIRROR	L.H. drive vehicles	I	D	N	N	N
	R.H. drive vehicles	I	D	N	N	N
	L.H. drive vehicles with the remote controlled mirror switch installed in instrument panel	N	A	P	P	P
	L.H. drive vehicles with the remote controlled mirror switch installed in door	N	A	P	P	P
	R.H. drive vehicles with the remote controlled mirror switch installed in instrument panel	N	A	P	P	P
	R.H. drive vehicles with the remote controlled mirror switch installed in door	N	A	P	P	P
	L.H. drive vehicles with single cab and club cab	I	P	R	P	P
	L.H. drive vehicles with double cab	I	P	P	P	P
RADIO AND TAPE PLAYER	R.H. drive vehicles	I	P	D	N	N
	R.H. drive vehicles with single cab	N	N	A	P	P
	R.H. drive vehicles with double cab	N	N	A	P	P
	L.H. drive vehicles	I	P	P	P	P
	R.H. drive vehicles	I	P	R	P	P
CLOCK	–	I	P	P	P	P
CIGARETTE LIGHTER	–	I	P	P	P	P

Main circuit	Circuit classifications	Previous manual: Pub. No. PHTe96E1-B (Basic)	Previous manual: Pub. No. PHTe96E1-C (Supplement)	Previous manual: Pub. No. PHTe96E1-D (Supplement)	Previous manual: Pub. No. PHTe96E1-E (Supplement)	This manual: Pub. No. PHTe96E1-F (Supplement)
ANTI-SKID BRAKING SYSTEM (ABS)	2WD	I	R	R	P	P
	4WD <Except diesel-powered vehicles (Step II)>	N	N	N	N	A
	4WD <Diesel-powered vehicles (Step II)>	I	R	R	P	P
REAR DIFFERENTIAL LOCK SYSTEM	L.H. drive vehicles	I	P	P	P	R
	R.H. drive vehicles	I	P	P	P	R
PART TIME 4WD SYSTEM	—	I	R	R	P	N
	Except diesel-powered vehicles <Step II>	N	N	N	N	A
	Diesel-powered vehicles <Step II>	N	N	N	N	A
RHEOSTAT	—	I	P	P	P	P
SUPPLEMENTAL RESTRAINT SYSTEM (SRS)	Petrol-powered vehicles	I	D	N	N	N
	Diesel-powered vehicles	I	D	N	N	N
	—	N	A	R	P	P
IMMOBILIZER SYSTEM	Petrol-powered vehicles	I	P	R	P	R
	Diesel-powered vehicles <Step II>	I	P	R	P	P
	Diesel-powered vehicles <Step III>	N	N	N	N	A
LIGHTING MONITOR BUZZER	L.H. drive vehicles	I	P	P	P	P
	R.H. drive vehicles	I	P	P	P	P
HEATED SEAT	—	I	P	P	P	P
INTERCOOLER FAN	Diesel-powered vehicles <Step II>	I	P	R	P	P
	Diesel-powered vehicles <Step III>	N	N	N	N	A
FUEL LINE HEATER	Diesel-powered vehicles <Step II>	I	P	R	P	P
	Diesel-powered vehicles <Step III>	N	N	N	N	A