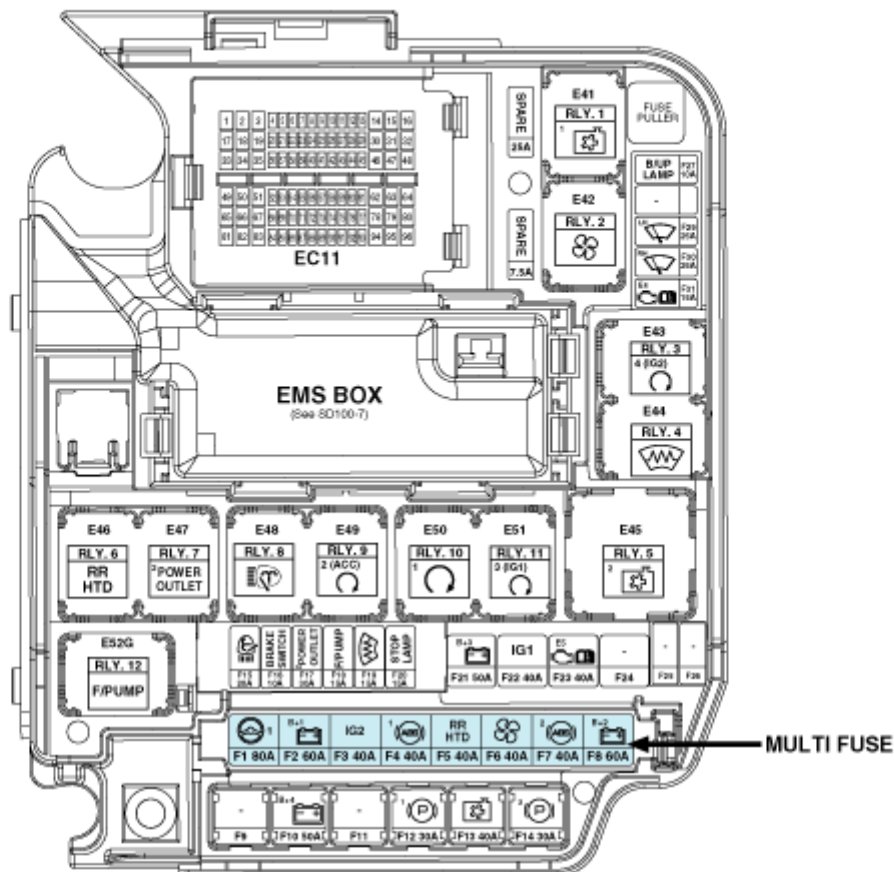



























## E/R Fuse &amp; Relay Box (GSL)



Relay NO.	Symbol	Relay Name	Type
E41		C/FAN 1 RELAY	PLUG MICRO
E42		BLOWER RELAY	PLUG MICRO
E43		PDM3 (IG2) RELAY	PLUG MICRO
E44		DEICER RELAY	PLUG MICRO
E45		C/FAN 2 RELAY	PLUG MINI
E46		RR HTD RELAY	PLUG MICRO
E47		POWER OUTLET 2 RELAY	PLUG MICRO
E48		H/LAMP WASHER RELAY	PLUG MICRO
E49		PDM1 (ACC) RELAY	PLUG MICRO
E50		START RELAY	PLUG MICRO
E51		PDM2 (IG1) RELAY	PLUG MICRO
E52G		F/PUMP RELAY	PLUG MICRO

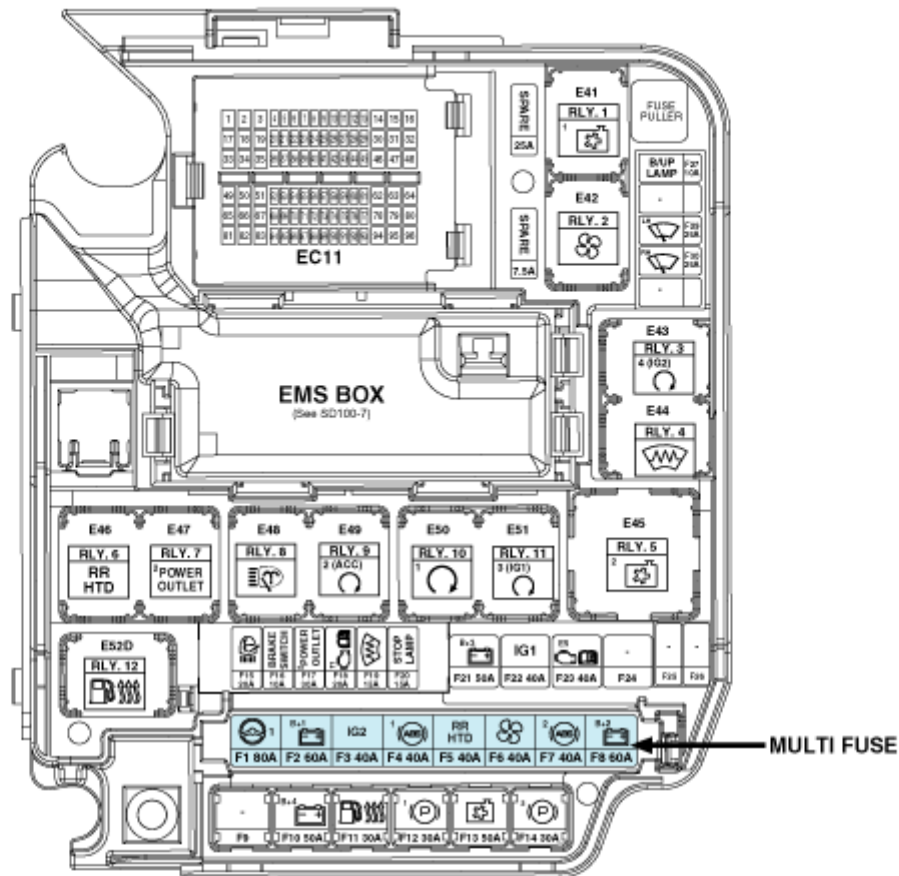
✘ USE THE DESIGNATED FUSE AND RELAY ONLY

**Circuit (E/R Fuse & Relay Box : GSL)**

Fuse No.	(A)	Symbol	Fuse Name	Circuit Protected	
MULTI FUSE	F1	80A	 1	MDPS	MDPS Unit
	F2	60A	 B+1	B+1	Smart Junction Box (IPS 1, IPS 2, IPS 3, IPS 4, Fuse - F2/F9/F22/F29/F36)
	F3	40A	 IG2	IG2	RLY. 9 (Start Relay), Ignition Switch (W/O Button Start), RLY. 3 (PDM 3 (IG2) Relay, With Button Start)
	F4	40A	 1	ABS1	ABS/ESP Control Module, Multipurpose Check Connector
	F5	40A	 RR HTD	RR HTD	RLY. 6 (Rear Defogger Relay)
	F6	40A		BLOWER	RLY. 2 (Blower Relay)
	F7	40A	 2	ABS2	ABS/ESP Control Module, Multipurpose Check Connector
	F8	60A	 B+2	B+2	Smart Junction Box (IPS 5, IPS 6, IPS 7, IPS 8, Fuse - F31/F37/F38)
FUSE	F10	50A	 B+4	B+4	E/R Fuse & Relay Box (Fuse - F29/F30/F31)
	F12	30A	 1	EPB 1	Electric Parking Brake Module
	F13	40A		C/FAN	RLY. 1 (C/FAN 1 Relay), RLY. 5 (C/FAN 2 Relay)
	F14	30A	 1	EPB 2	Electric Parking Brake Module
	F15	20A		H/LP WASHER	RLY. 8 (HEAD LAMP WASHER Relay)
	F16	10A		BRAKE SWITCH	Stop Lamp Switch, Smart Key Control Module
	F17	30A	 2	POWER OUTLET 2	RLY. 7 (POWER OUTLET 2 Relay)
	F18	15A		FUEL PUMP	RLY. 12 (F/PUMP Relay)
	F19	15A		DEICER	RLY. 4 (DEICER Relay)
	F20	15A		STOP LAMP	Stop Signal Electronic Module
	F21	50A	 B+3	B+3	Smart Junction Box (Leak Current Autocut Device, Fuse - F30/F32/F33/F39)
	F22	40A		IG1	RLY. 9 (PDM 1 (ACC) Relay), RLY. 11 (PDM 2 (IG 1) Relay), Ignition Switch
	F23	40A		ECU 5	EMS Box (Fuse - F32/F33/F34)
	F27	10A		B/UP LP	MT - Back-Up Lamp Switch, A/T - Rear Combination Lamp (IN) LH/RH, Electro Chromic Mirror, A/V & Navigation Head Unit, Audio, Instrument Cluster
	F29	25A	 LH	WIPER (LH)	Front Wiper LH
F30	25A	 RH	WIPER (RH)	Front Wiper RH	
F31	15A		ECU 4	ECM	

**✘ USE THE DESIGNATED FUSE AND RELAY ONLY**


























## E/R Fuse &amp; Relay Box (DSL)



Relay NO.	Symbol	Relay Name	Type
E41		C/FAN 1 RELAY	PLUG MICRO
E42		BLOWER RELAY	PLUG MICRO
E43		PDM3 (IG2) RELAY	PLUG MICRO
E44		DEICER RELAY	PLUG MICRO
E45		C/FAN 2 RELAY	PLUG MINI
E46		RR HTD RELAY	PLUG MICRO
E47		POWER OUTLET 2 RELAY	PLUG MICRO
E48		H/LAMP WASHER RELAY	PLUG MICRO
E49		PDM1 (ACC) RELAY	PLUG MICRO
E50		START RELAY	PLUG MICRO
E51		PDM2 (IG1) RELAY	PLUG MICRO
E52D		F/HEATER RELAY	PLUG MICRO

※ USE THE DESIGNATED FUSE AND RELAY ONLY

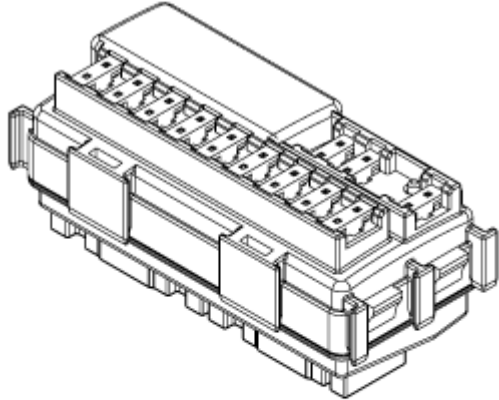
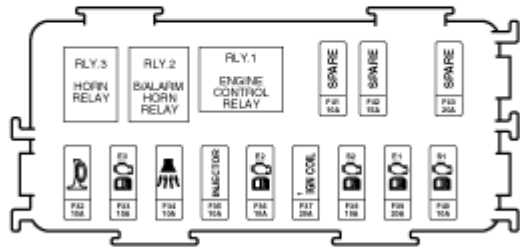
**Circuit (E/R Fuse & Relay Box : DSL)**

Fuse No.	(A)	Symbol	Fuse Name	Circuit Protected
MULTI FUSE	F1	80A	 MDPS	MDPS Unit
	F2	60A	 B+1	Smart Junction Box (IPS 1, IPS 2, IPS 3, IPS 4, Fuse - F2/F9/F22/F29/F36)
	F3	40A	 IG2	RLY. 9 (Start Relay), Ignition Switch (W/O Button Start), RLY. 3 (PDM 3 (IG2) Relay, With Button Start)
	F4	40A	 ABS1	ABS/ESP Control Module, Multipurpose Check Connector
	F5	40A	 RR HTD	RLY. 6 (Rear Defogger Relay)
	F6	40A	 BLOWER	RLY. 2 (Blower Relay)
	F7	40A	 ABS2	ABS/ESP Control Module, Multipurpose Check Connector
	F8	60A	 B+2	Smart Junction Box (IPS 5, IPS 6, IPS 7, IPS 8, Fuse - F31/F37/F38)
FUSE	F10	50A	 B+4	E/R Fuse & Relay Box (Fuse - F29/F30/F31)
	F11	30A	 FUEL HEATER	RLY. 12 (Fuel Heater Relay)
	F12	30A	 EPB 1	Electric Parking Brake Module
	F13	50A	 C/FAN	RLY. 1 (C/FAN 1 Relay), RLY. 5 (C/FAN 2 Relay)
	F14	30A	 EPB 2	Electric Parking Brake Module
	F15	20A	 H/LP WASHER	RLY. 8 (HEAD LAMP WASHER Relay)
	F16	10A	 BRAKE SWITCH	Stop Lamp Switch, Smart Key Control Module
	F17	30A	 POWER OUTLET 2	RLY. 7 (POWER OUTLET 2 Relay)
	F18	20A	 TCM 1	TCM
	F19	15A	 DEICER	RLY. 4 (DEICER Relay)
	F20	15A	 STOP LAMP	Stop Signal Electronic Module
	F21	50A	 B+3	Smart Junction Box (Leak Current Autocut Device, Fuse - F30/F32/F33/F39)
	F22	40A	 IG1	RLY. 9 (PDM 1 (ACC) Relay), RLY. 11 (PDM 2 (IG 1) Relay), Ignition Switch
	F23	40A	 ECU 5	EMS Box (Fuse - F32/F33/F34)
	F27	10A	 B/UP LAMP	MT - Back-Up Lamp Switch, A/T - Rear Combination Lamp (IN) LH/RH, Electro Chromic Mirror, A/V & Navigation Head Unit, Audio, Instrument Cluster
	F29	25A	 WIPER (LH)	Front Wiper LH
	F30	25A	 WIPER (RH)	Front Wiper RH

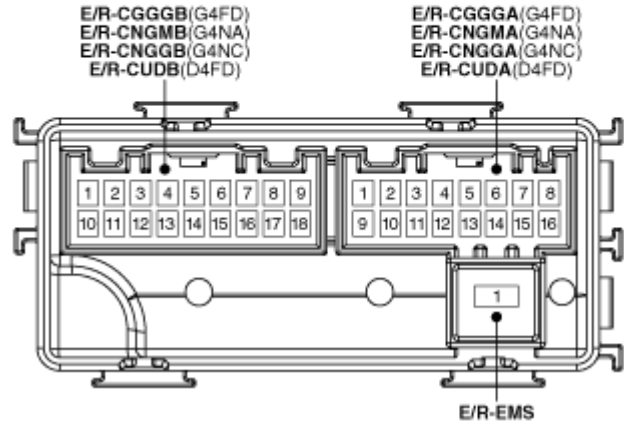
**✘ USE THE DESIGNATED FUSE AND RELAY ONLY**

**EMS BOX**

<FRONT>



<REAR>



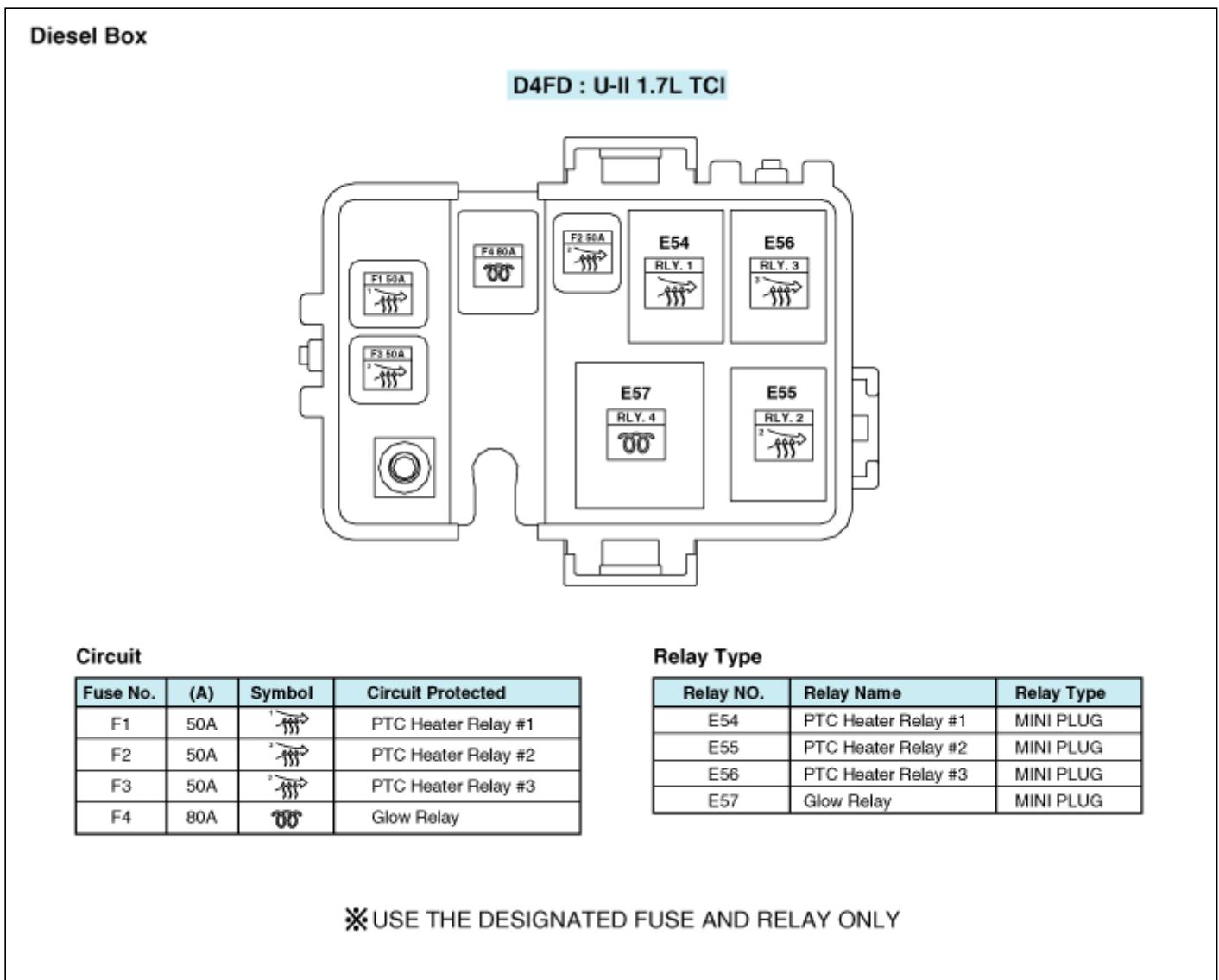
Relay NO.	Relay Name	Type
1	ENGINE CONTROL RELAY	PCB
2	B/ALARM HORN RELAY	PCB
3	HORN RELAY	PCB

⚠ USE THE DESIGNATED FUSE AND RELAY ONLY

**Circuit (EMS Box)**

Fuse No.	(A)	Symbol	Fuse Name	Circuit Protected
F32	15A		HORN	Horn Relay
F33	15A		ECU3	G4FD : PCM (A/T), ECM (M/T) G4NA : PCM (A/T), ECM (M/T) G4NC : PCM (A/T), ECM (M/T)
F34	10A		B/ALARM	B/Alarm Horn Relay, Horn Relay
F35	10A		INJECTOR	G4NA : Injector #1/#2/#3/#4
F36	10A		ECU 2	G4FD : PCM (A/T), ECM (M/T) G4NC : PCM (A/T), ECM (M/T)
F37	20A		IGN COIL1	G4NA : Ignition Coil #1/#2/#3/#4, Condenser
F38	10A		SENSOR 2	G4FD : Oil Control Valve #1/ #2, Oil Level Sensor, E/R Fuse & Relay Box (RLY. 1, RLY. 12) G4NA/G4NC : Oil Control Valve #1/ #2, Camshaft Position Sensor (Intake/Exhaust), Oil Level Sensor, E/R Fuse & Relay Box (RLY. 1, RLY. 12) D4FD : E/R Fuse & Relay Box (RLY. 1), Diesel Box (RLY. 1), Lambda Sensor, Fuel Regulating Valve VGT Control Solenoid Valve
F39	20A		ECU 1	G4FD/D4FD : ECM G4NA/G4NC : PCM (A/T), ECM (M/T)
F40	10A		SENSOR 1	G4FD : Oxygen Sensor (UP/DOWN), Variable Intake Solenoid Valve, Purge Control Solenoid Valve G4NA/G4NC : Oxygen Sensor (UP/DOWN), Variable Intake Solenoid Valve, Purge Control Solenoid Valve D4FD : Camshaft Position Sensor, EGR Cooling Bypass Solenoid Valve, Diesel Box (RLY. 4), Oil Level Sensor

⚠ USE THE DESIGNATED FUSE AND RELAY ONLY



### Components and components location

Component Location 1. Cooling fan relay (low) 2. Blower relay 3. IG2 relay 4. Deicer relay 5. Cooling fan relay (high) 6. Rear defogger relay ...

### Relay Box (Engine Compartment) Repair procedures



Inspection 1. Disconnect the negative (-) battery terminal. 2. Pull out the relay from the engine compartment relay box. P ...

### Other information:

## [Kia Carens RP \(2013-2018\) Service Manual: Rear Bumper beam Assembly Repair procedures](#)

Replacement • Put on gloves to protect your hands. • When ...

## [Kia Carens RP \(2013-2018\) Service Manual: Repair procedures](#)

Replacement 1. Loosen the wheel nuts slightly. Raise the vehicle, and make sure it is securely supported. 2. Remove the rear wheel and tire (A) from rear hub . Tightening torque: 88.3 ~ ...

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