

#### SUBARU CORPORATION

Executive Order: A-002-0225

New Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles

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Pursuant to the authority vested in California Air Resources Board by Health and Safety Code (HSC), Division 26, Part 5, Chapter 2; and pursuant to the authority vested in the undersigned by HSC Sections 39515 and 39516 and Executive Order G-14-012;

IT IS ORDERED AND RESOLVED: That the following exhaust and evaporative emission control systems produced by the manufacturer are certified as described below. Production vehicles shall be in all material respects the same as those for which certification is granted.

					TEST GRO	UP IN	IFOR	MATION					
MODE		TEST GROUP		VEHICLE CLASS(ES)				FUEL C	ATEGORY		FUEL TYPE		
201	9 K	FJXT02.4CZA			LDT2				SINGLE FUEL HICLE		GASOLINE		
	USEFU	JL LIFE (miles)		VEH	ICLE EMISS	MISSION CATEGORY INTERIM / INTERM			MEDIATE IN-USE STD				
EXI	I/ORVR	R EVAP			FTP		SF	TP	FTP		SFTP		
1.	50000	150000	)	LEV3	ULEV125	LEV	3 CC	MPOSITE	PM		PM		
SPE	ECIAL F	EATURES & EX	HAUS		ON CONTRO	L		OBD S	TATUS	E	NGINE DISPLACEMENT (L)		
1	TWC (2	?), WR-HO2S,	HO2S EGR		, DFI, EG	R,		FULL	ALL MODELS				
*			*				Р	ARTIAL	*	$\exists \bot$	2.4		
*	* *						1	TIAL WITH	*				
		Е	VAPO	RATIVE &	REFUELING	(EVA	P/OR	VR) FAMIL	INFORMATIO	N			
EV	AP / OR	VR FAMILY	EVA	APORATIVE	STD CATE	D CATEGORY EVAP EMISSION STD VEHICLE CLASS			,	SPECIAL FEATURES			
	KFJXRC	)1535HF	L	EV 3 OPTI	ON2 WITH	FEL LDT2 HCT			HCT				
				E	MISSION C	REDIT	INFO	RMATION					
1	REDIT F	OX FLEET AVE. FOR EXTENDED ARRANTY			EDIT FOR N ZERO-EVAP		ZEV	NMOG C	MOG CREDIT FOR DOR		OPTIONAL EXH. STD FOR WORK TRUCKS		
		N			N				N		N		
				NMOG	AND FLEET	T AVE	RAGI	INFORMA	TION				
NMOG RAF	CH4 RAF			HO/NMHC RATIO	NMOG+NO PC+LDT (			V) LDT	+NOX FLEET S (3751 LVW-850 R) + MDPV (g/n	0	NMOG+NOX FLEET STD MDV (10,001-14,000 GVWR) (g/mi)		
*	*	1.10		0.001	0	.072			0.083		*		

See the Attachment for Vehicle Models, Evaporative Family, Engine Displacement, Emission Control Systems, Phase-In Standards, OBD Compliance, Emission Standards and Certification Levels, and Abbreviations.



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#### BE IT FURTHER RESOLVED:

The exhaust and evaporative emission standards and the certification emission levels for the listed vehicles are as listed on the Attachment. Compliance with the 50° Fahrenheit testing requirement may have been met based on the manufacturer's submitted compliance plan in lieu of testing. Any debit in the manufacturer's fleet average compliance requirement for NMOG+NOx or Vehicle Equivalent Credit (13 CCR Sections 1961.2(b)(1), 1961.2(b)(3), or 1961.2(c)(3), and the incorporated test procedures, as applicable), or Greenhouse Gas Emissions (13 CCR Section 1961.3, or 17 CCR Section 95663, and the incorporated test procedures, as applicable), for PC, LDT, MDPV or MDV shall be equalized as required.

#### BE IT FURTHER RESOLVED:

For the listed vehicle models, the manufacturer has attested to compliance with Title 13, California Code of Regulations, (13 CCR) Sections 1965 [emission control labels], 1968.2 [on-board diagnostic, full or partial compliance], 2035 et seq. [emission control warranty], 2235 [fuel tank fill pipes and openings] (gasoline and alcohol fueled vehicles only), and "High-Altitude Requirements" and "Inspection and Maintenance Emission Standards" (California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for PC, LDT and MDV).

day of March 2018.

Vehicles certified under this Executive Order shall conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this Executive Order.

Executed at El Monte, California on this \_\_\_\_\_

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division



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### **ATTACHMENT**

## EXHAUST AND EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

EXHAUST EMISSION STANDARDS	AND CERTIFICATION LEVELS	(FTP, HWFET, 50°F, 20°F)

CH4: methane; NMOG: non-CH4 organic gas; HC: hydrocarbon; NMHC: non-CH4 HC; CO: carbon monoxide; NOx: oxides of nitrogen; HCHO: formaldehyde; PM: particulate matter; RAF: reactivity adjustment factor; 2DHS/3DHS [g HC/test]: 2/3 days diurnal+hot-soak; RL [g HC/mi]: running loss; ORVR [g HC/gallon dispensed]: on-board refueling vapor recovery; g: gram; mg: milligram; mi: mile; K: 1000 miles; F: degrees Fahrenheit; FTP: federal test procedure; SFTP: supplemental FTP

#### **FUEL TYPE**

		NMOG+NOx (g/mi)		CO (g/mi)		NOx (g/mi)		HCHO (mg/mi)		PM (g/mi)	
-		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD
FTP@50K	*	*	*	*	*	*	*	*	*	*	*
FTP@UL	GASOLINE- LEV3 E10	0.0801	0.125	0.62	2.1	*	*	0.0	4	0.0004	0.003
50°F @4K	GASOLINE- LEV3 E10	0.0635	0.250	0.66	2.1	*	*	0.0	16		

	FUEL TYPE	NMOG+N	Ox (g/mi)	CO (g/mi)		
	FUEL TYPE	CERT	STD	CERT	STD	
HWFET @ 50K	*	*	*			
HWFET @ UL	GASOLINE-LEV3 E10	0.0301	0.125			
20°F @ 50K	COLD CO E10 REGULAR GASOLINE (TIER3)			1.11	12.5	

#### SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

				US06		SC03	}	COM	POSITE	
	FUEL TYPE		NMOG+NOx (g/mi)	CO (g/mi)	PM (mg/mi)	NMOG+NOx (g/mi)	CO (g/mi)	NMOG+NOx (g/mi)	CO (g/mi)	PM (mg/mi)
@ 4K	*	CERT	*	*		*	*			
@ 41.		STD	*	*		*	*			
		CERT	*	*	0.0	*	*	0.0600	0.49	*
@ UL	GASOLINE- LEV3 E10	STD	*	*	6	*	*	0.090	4.2	*
		BIN		-				0.090		

#### WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

EVAPORATIVE FUEL TYPE			WHOLE	VEHICLE	EVAPORA	TIVE TESTI	NG		
EVAPORATIVE FAMILY	FUEL TYPE	3DH	S (g/test)	@ UL	2DI	HS (g/test) (	@ UL	RL (g/m	ii) @ UL
		CERT	STD	FEL	CERT	STD	FEL	CERT	STD
KFJXR01535HF	GASOLINE- LEV3 E10	0.2958	0.400	0.500	0.2216	0.400	0.500	0.000	0.05

#### ORVR / FUEL ONLY / CANISTER BLEED EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

EVAPORATIVE FAMILY				FUEL ONLY EVAP & CANISTER BLEED									
EVAPORATIVE FAMILY	ORVR (g/gallon) @ UL			FUEL TYPE	3DHS RIG TEST (g/test) @ UL		2DHS RIG TEST (g/test) @ UL		BLEED CANISTER TEST (g/test) @ 4K				
·	FUEL TYPE	CERT	STD		CERT	STD	CERT	STD	CERT	STD			
KFJXR01535HF	GASOLINE- TIER3 E10	0.002	0.20	GASOLINE- LEV3 E10	*	*	*	*	0.0137	0.020			



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EFFECTIV	E LEAK DIAMETER STAND	ARD AND CERTIFICATION LEV	'EL (INCHES)
EVAPORATIVE FAMILY	LEAK FAMILY	CERT	STD
KFJXR01535HF	KFJXR01535HF-5HF		0.02

not applicable; #: pounds; UL: useful life; PC: passenger car; LDT: light-duty truck; LDT1: LDT<6000#GVWR,0-3750#LVW; LDT2: .DT<6000#GVWR,3751-5750#LVW; LDT3; LDT 6001-8500#GVWR,3751-5750#ALVW; LDT4; LDT 6001-8500#GVWR,5751-8500#ALVW; MDV: medium-duty vehicle; MDV4: MDV 8501-10000#GVWR; MDV5: MDV 10001-14000#GVWR; MDPV: mediumduty passenger vehicle; HDV: heavy-duty vehicle; ECS: emission control system; CERT: certification; STD: standard; FEL: family emission limit; GVWR: gross vehicle weight rating; LVW: loaded vehicle weight; ALVW: adjusted LVW; LEV: low emission vehicle; ULEV: ultra LEV; SULEV: super ULEV; ZEV: zero-emission vehicle; TZEV: transitional ZEV; TWC/OC: 3-way/oxidizing catalyst; ADSTWC: adsorbing TWC; HAC: HC adsorbing catalyst; WU: warm-up catalyst; NAC: NOx adsorption catalyst; SCR-U or SCRC/SCR-N or SCRC-NH3: selective catalytic reduction-urea/ammonia; NH3OC: ammonia oxidation catalyst; CTOX/PTOX: continuous/periodic trap oxidizer; DPF: diesel particulate filter (active); GPF: PM filter for spark-ignited engine; HO2S/O2S: heated/oxygen sensor; WR-HO2S or AFS: wide range/linear/heated air-fuel ratio sensor; NOXS: NOx sensor; PMS: PM sensor; RDQS: reductant quality sensor; NH3S: ammonia sensor; EGR: exhaust gas recirculation; EGRC: EGR cooler; AIR/AIRE: secondary air injection (belt driven)/(electric driven); PAIR: pulsed AIR; SFI/MFI: sequential/multiport fuel injection; DFI/IFI: direct/indirect fuel injection; TC/SC: turbo/super charger; CAC: charge air cooler; FFH: fuel fired heater; F/P/\$: full/partial/partial with fines on-board diagnostic; DOR: direct ozone reducing; HCT: hydrocarbon trap; BCAN: bleed carbon canister; prefix 2: parallel; (2) suffix: series; CNG/LNG: compressed/liquefied natural gas; LPG: liquefied petroleum gas; E85: "85%" ethanol ("15%"gasoline) fuel; E10: "10%" ethanol ("90%"gasoline) fuel; A: automatic (with lockup); M: manual transmission; SA: semi-automatic transmission; CV: continuously variable transmission; SCV: selectable continuously variable transmission; AM: automated manual transmission; AMS: automated manual-selectable transmission; OT: other transmission; AER: all-electric range; EAER: equivalent AER; PHEV: plug-in hybrid electric vehicle

## 2019 MODEL YEAR: VEHICLE MODELS INFORMATION

MAKE	MODEL	VEH CLASS	ENGINE (L)	TRANS TYPE	EVAPORATIVE FAMILY	ECS	OBD
SUBARU	ASCENT	LDT2	2.4	scv8	KFJXR01535HF	1	F
SUBARU	ASCENT LIMITED/TOURING	LDT2	2.4	scv8	KFJXR01535HF	1	F