i-stop INDICATOR LIGHT (GREEN) [SKYACTIV-D 2.2]

id0140z7008600

Purpose, Function

- If the i-stop (engine stop control) permit condition is met while the vehicle is being driven, the i-stop indicator light (green) illuminates to inform the driver that an engine-stop by the i-stop control is permitted. In addition, if the engine cannot be stopped by the i-stop control due to insufficient depression of the brake pedal after the vehicle is stopped, the light flashes to warn the driver to further depress the brake pedal.
- The light illuminates based on the i-stop (engine stop control) permit conditions.

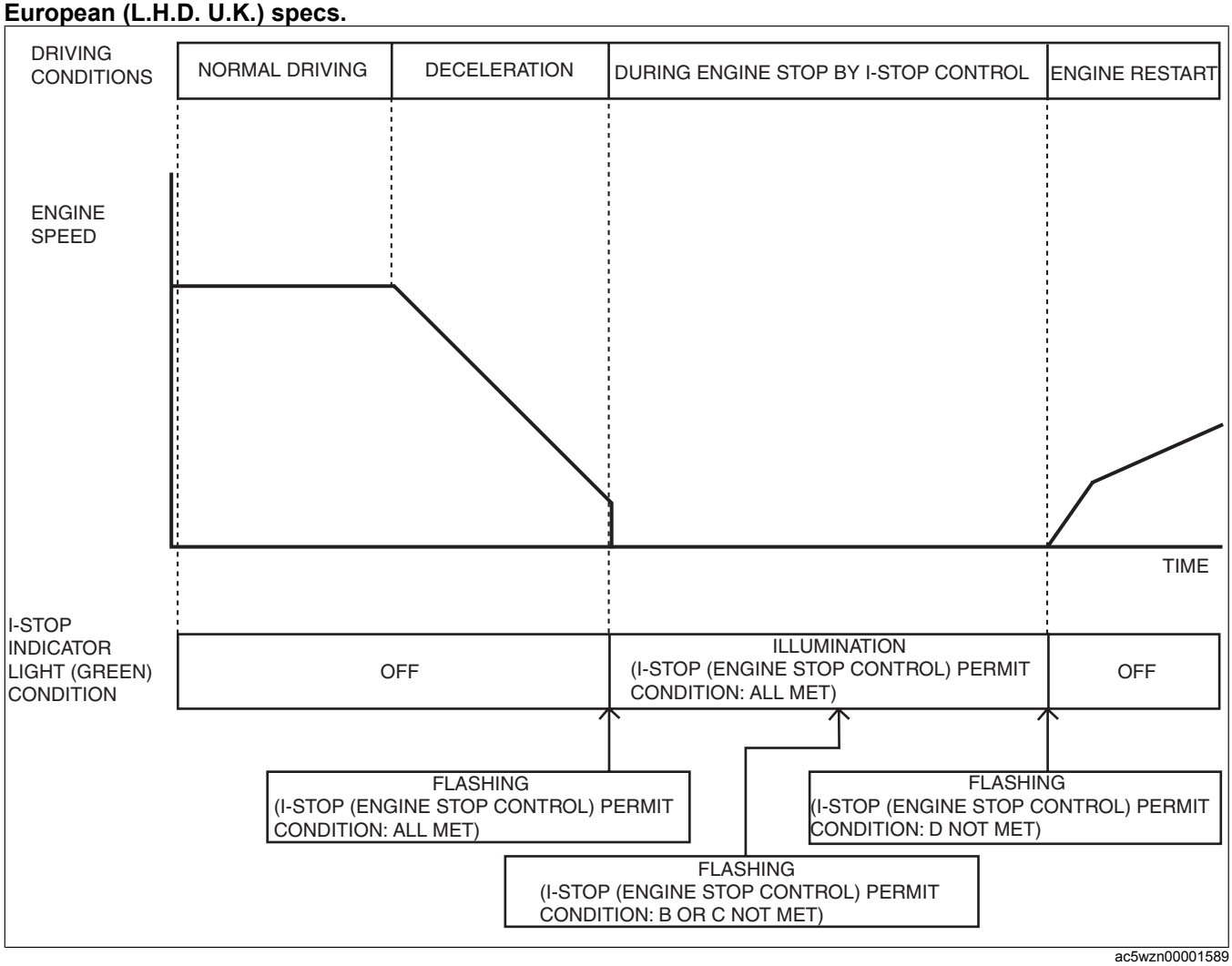
Construction

- The i-stop indicator light (green) is built into the instrument cluster.

Operation

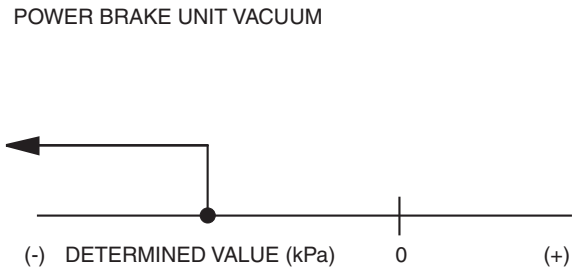
- The illumination/flashing conditions of the i-stop indicator light (green) differ depending on the i-stop (engine-stop control) permit condition.
- The illumination/flashing conditions of the i-stop indicator light (green) are as follows:

European (L.H.D. U.K.) specs.



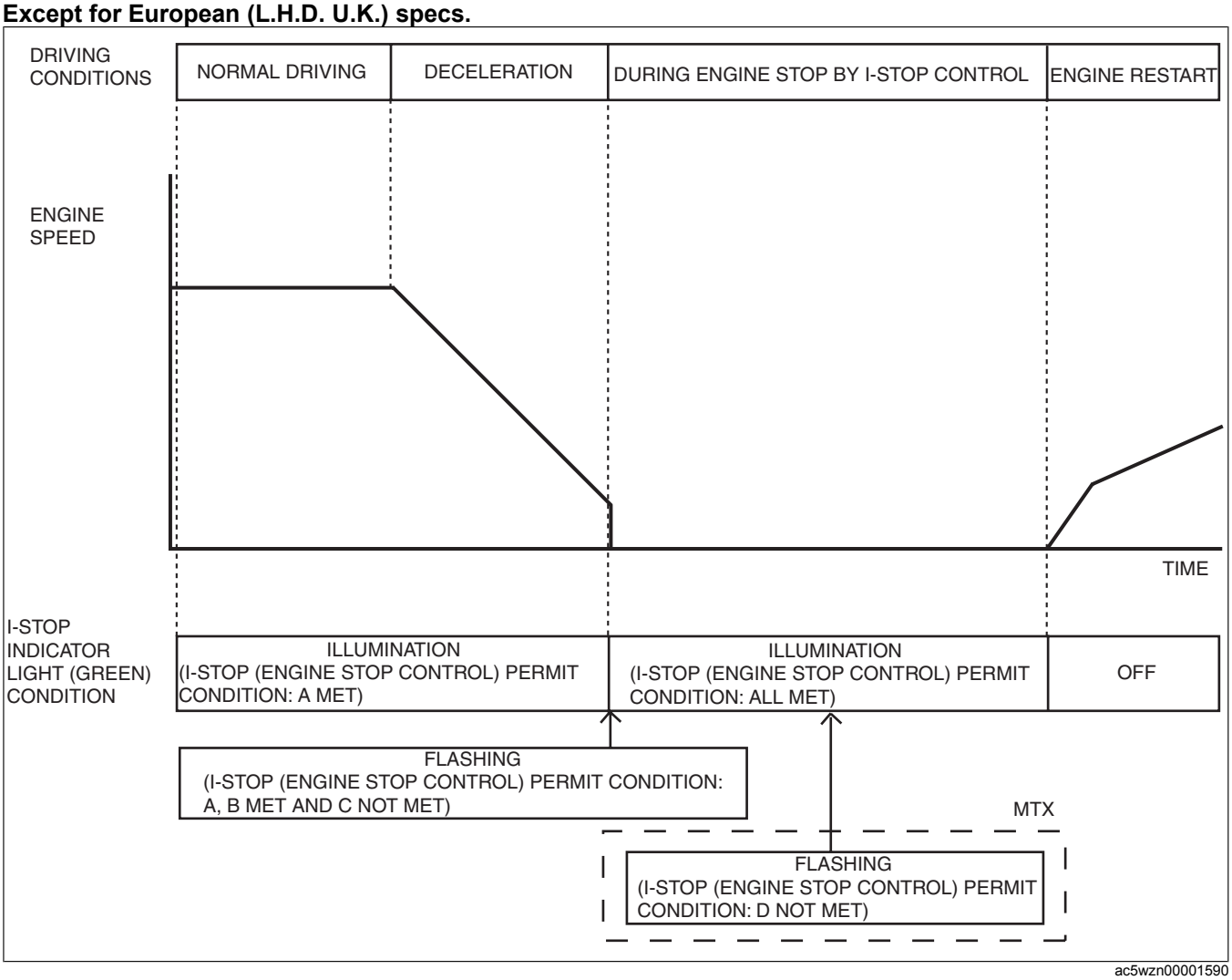
ac5wzn00001589

i-stop indicator light (green) illumination/ flashing condition determination	i-stop (engine-stop control) permit condition item	ATX	MTX
A	i-stop OFF switch	OFF	←
	Vehicle speed history	3 km/h {2 mph} or more	4 km/h {2.5 mph} or more
	Bonnet	Closed *2	←
	Seat belt (Driver side)	Fastened	←
	System condition	i-stop related module is normal	←
	Fast idle increase	Completed	←
	Fuel injection amount learning	Completed	←
	DPF regeneration	Completed	←
	Battery condition learning	Completed	←
	Steering angle sensor initialization setting	Completed	Not applicable
	DSC sensor initialization	Completed	Not applicable
	Intake air temperature	100°C {212 °F} or less	←
	TFT temperature	20—120 °C {68—248 °F}	Not applicable
	Altitude	1,800 m or less	←
	Vehicle conditions	Vehicle stopped in D position (After vehicle is stopped and shifted into N position, engine stops 0.6 s after operation. In addition, after vehicle is stopped in D position and if shifted into P position, engine stop condition continues by i-stop control	Not applicable
	Brake pedal	Brake pedal depressed in D position or M position (except 2nd gear fixed mode) (If ABS operates during deceleration, i-stop operation is inhibited.)	Not applicable
	Brake fluid pressure	Brake fluid pressure is 1.25 MPa {12.7 kgf/cm^2, 181 psi} or more in D position or M position (except 2nd gear fixed mode) (pedal force sufficient to suppress vehicle lurch when engine is restarted)	Not applicable
	Accelerator pedal	Released (foot is removed from accelerator pedal)	←
	Clutch pedal	Not applicable	30% or less (clutch pedal opening angle)

i-stop indicator light (green) illumination/ flashing condition determination	i-stop (engine-stop control) permit condition item	ATX	MTX
A	Steering speed angle	15 deg/sec or less	←
	Steering angle	-65—65 °(center)	Not applicable
	Steering torque	1.4 N·m {14 kgf·cm, 12 in·lbf} or less	←
	Door (front, rear)	Closed	←
	Liftgate	Closed	←
	Vehicle inclination angle	Less than ±7% when level	Not applicable
	Vehicle speed	0 km/h	3 km/h {2 mph} or less
	Power brake unit vacuum	-45 kPa {-0.46kgf/cm^2, -6.5 psi} or less 	
B	Door (driver side).	Closed	←
C	Gear position	Not applicable	Neutral
D	Cabin temperature (With full-auto air conditioner)	Difference between target temperature in cabin and temperature in cabin is within a certain value (A/C cabin temperature control is performed)	←
	A/C temperature (With full-auto air conditioner)	Setting other than MAX/MIN	←
	Warm up condition (With manual air conditioner)	Ambient temperature is 10 °C {50 °F} or more and engine coolant temperature is 60 °C {140 °F} or more	←
	Cold condition (With manual air conditioner)	Ambient temperature is 29 °C {84 °F} or less and evaporator temperature is 9 °C {48 °F} or less	←
	Ambient temperature	-10—50 °C {14—122 °F}	←
	Estimated battery voltage at engine restart	7.45 V or more *1	←
	Battery charge condition	Charge condition: 70% or more (determined by current sensor signal)	←
	Battery fluid temperature	0—70 °C {32—158 °F}	←
	Battery voltage	11.2 V or more	←
	Defroster switch	OFF	←
	Engine coolant temperature	30—110 °C {86—230 °F}	←

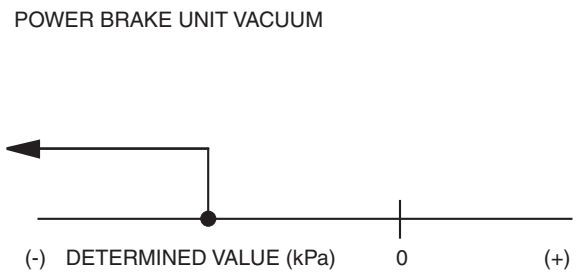
*1 : With a high capacity audio system or added electronic device connected to the DC-DC converter, engine stop by the i-stop control is inhibited more quickly than normal due to repeated i-stop operation.
*2 : If the engine is started while the hood is open, i-stop is inhibited until the engine is stopped.

Except for European (L.H.D. U.K.) specs.



ac5wzn00001590

i-stop indicator light (green) illumination/ flashing condition determination	i-stop (engine-stop control) permit condition item	ATX	MTX
A	Cabin temperature (With full-auto air conditioner)	Difference between target temperature in cabin and temperature in cabin is within a certain value (A/C cabin temperature control is performed)	←
	A/C temperature (With full-auto air conditioner)	Setting other than MAX/MIN	←
	Warm up condition (With manual air conditioner)	Ambient temperature is 10 °C {50 °F} or more and engine coolant temperature is 60 °C {140 °F} or more	←
	Cold condition (With manual air conditioner)	Ambient temperature is 29 °C {84 °F} or less and evaporator temperature is 9 °C {48 °F} or less	←
	Ambient temperature	-10—50 °C {14—122 °F}	←
	i-stop OFF switch	OFF	←
	Vehicle speed history	3 km/h {2 mph} or more	4 km/h {2.5 mph} or more
	Battery charge condition	Charge condition: 70% or more (determined by current sensor signal)	←
	Battery fluid temperature	0—70 °C {32—158 °F}	←
	Battery voltage	11.2 V or more	←
	Estimated battery voltage at engine restart	7.45 V or more *1	←
	Defroster switch	OFF	←
	Door (driver side).	Closed	←
	Bonnet	Closed *2	←
	Seat belt (driver side)	Fastened	←
	System condition	i-stop related module is normal	←
	Fast idle increase	Completed	←
	Fuel injection amount learning	Completed	←
	DPF regeneration	Completed	←
	Battery condition learning	Completed	←
	Steering angle sensor initialization setting	Completed	Not applicable
	DSC sensor initialization	Completed	Not applicable
	Engine coolant temperature	30—110 °C {86—230 °F}	←
	Intake air temperature	100°C {212 °F} or less	←
	TFT temperature	20—120 °C {68—248 °F}	Not applicable
	Altitude	1,500 m or less	←

i-stop indicator light (green) illumination/ flashing condition determination	i-stop (engine-stop control) permit condition item	ATX	MTX
B	Vehicle speed	0 km/h	3 km/h {2 mph} or less
	Vehicle conditions	Vehicle stopped in D position (After vehicle is stopped and shifted into N position, engine stops 0.6 s after operation. In addition, after vehicle is stopped in D position and if shifted into P position, engine stop condition continues by i-stop control	Not applicable
	Brake pedal	Brake pedal depressed in D position or M position (except 2nd gear fixed mode) (If ABS operates during deceleration, i-stop operation is inhibited.)	Not applicable
	Accelerator pedal	Released (foot is removed from accelerator pedal)	←
	Clutch pedal	Not applicable	30% or less (clutch pedal opening angle)
	Steering speed angle	15 deg/sec or less	←
	Steering angle	-65—65 °(center)	Not applicable
	Steering torque	1.4 N·m {14 kgf·cm, 12 in·lbf} or less	←
	Door (front, rear)	Closed	←
	Liftgate	Closed	←
	Power brake unit vacuum	-45 kPa {-0.46kgf/cm^2, -6.5 psi} or less 	
	Vehicle inclination angle	Less than ±7% when level	Not applicable
C	Brake fluid pressure	Brake fluid pressure is 1.25 MPa {12.7 kgf/cm^2, 181 psi} or more in D position or M position (except 2nd gear fixed mode) (pedal force sufficient to suppress vehicle lurch when engine is restarted)	Not applicable
D	Gear position	Not applicable	Neutral

*1 : With a high capacity audio system or added electronic device connected to the DC-DC converter, engine stop by the i-stop control is inhibited more quickly than normal due to repeated i-stop operation.
*2 : If the engine is started while the hood is open, i-stop is inhibited until the engine is stopped.

- The PCM sends an i-stop indicator light (green) illumination/flashing request to the instrument cluster via CAN communication.