

**PID/DATA MONITOR TABLE [START STOP UNIT]**

id0902p6025500

PID	Unit/ Operation	Data contents	Data read/use method	Inspection item(s)
BRAKE_SW 1*1	Off/On	<ul style="list-style-type: none"> <li>Off: Brake switched is off.</li> <li>On: Brake switch is on.</li> </ul>	—	Brake switch
CLUT_CUT _SW*2	Off/On	<ul style="list-style-type: none"> <li>Off: Starter interlock switch is off.</li> <li>On: Starter interlock switch is on.</li> </ul>	—	Starter interlock switch
CLUTCH_S W*2	Off/On	<ul style="list-style-type: none"> <li>Off: CPP switch is off.</li> <li>On: CPP switch is on.</li> </ul>	—	CPP switch
COMM_ST_ TSP	Off/On	<p>Displays operation condition of the immobilizer system key code read function</p> <ul style="list-style-type: none"> <li>Off: Key code read function not performed</li> <li>On: Code read function is performed and coil antenna reads key code from remote transmitter transponder.</li> </ul>	Key code reading function of immobilizer system is performed and when a brake switch, clutch switch, or push button start signal is input, the coil antenna reads the key code from the transponder of the remote transmitter, and displays On while the key code is being sent to the start stop unit.	Start stop unit
CRU_CON_ SW*3	Not_Pressed/On/Off/Cancel/Resume/Fault/Set (+)/Set (-)	<ul style="list-style-type: none"> <li>Not_Pressed: Each switch of cruise control switch is not pressed.</li> <li>On: Cruise ON switch is pressed.</li> <li>Off: Cruise OFF switch is pressed.</li> <li>Cancel: CANCEL switch is pressed.</li> <li>Resume: RESUME switch is pressed.</li> <li>Fault: Cruise control switch has a malfunction.</li> <li>Set (+): SET (+) switch is pressed.</li> <li>Set (-): SET (-) switch is pressed.</li> </ul>	—	Cruise control switch
ES_UL_SW	Not_Unlock/Unlock	<ul style="list-style-type: none"> <li>Not_Unlock: Steering lock unlock switch is off.</li> <li>Unlock: Steering lock unlock switch is on.</li> </ul>	—	Start stop unit
ES_UL_SW _M	Not_Unlock/Unlock	<ul style="list-style-type: none"> <li>Not_Unlock: Memory value of steering lock unlock switch is not unlocked.</li> <li>Unlock: Memory value of steering lock unlock switch is unlocked.</li> </ul>	—	Start stop unit
ES_ULL_S W	Off/On	<ul style="list-style-type: none"> <li>Not_Unlock: Steering lock unlock/lock switch is off.</li> <li>Unlock: Steering lock unlock/lock switch is on.</li> </ul>	—	Start stop unit
ES_ULL_S W_M	Off/On	<ul style="list-style-type: none"> <li>Not_Unlock: Memory value of steering lock unlock/lock switch is not unlocked.</li> <li>Unlock: Memory value of steering lock unlock/lock switch is unlocked.</li> </ul>	—	Start stop unit
F_FOG_SW	Off/On	<ul style="list-style-type: none"> <li>Off: Fog light switch is not in F.FOG position.</li> <li>On: Fog light switch is in F.FOG position.</li> </ul>	—	Front fog light switch
H/L_SW_HI	Off/On	<ul style="list-style-type: none"> <li>Off: Light switch is not in HI position.</li> <li>On: Light switch is in HI position.</li> </ul>	—	Light switch
H/ L_SW_LOW	Off/On	<p>Displays dimmer switch position of the light switch that is being input to the start stop unit</p> <ul style="list-style-type: none"> <li>Off: Dimmer switch of light switch is not in LO position</li> <li>On: Dimmer switch of light switch is in LO position</li> </ul>	Verify if the monitor value switches when the dimmer switch of the light switch is switched between LO and HI positions. If the dimmer switch operation and monitor values do not match, inspect the light switch.	Light switch
H/ L_SW_OFF	Off/On	<ul style="list-style-type: none"> <li>Off: Light switch is not in OFF position.</li> <li>On: Light switch is in OFF position.</li> </ul>	—	Light switch
H/ L_SW_PAS S	Off/On	<ul style="list-style-type: none"> <li>Off: Light switch is not in passing position.</li> <li>On: Light switch is in passing position.</li> </ul>	—	Light switch

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H/ L_SW_TNS	Off/On	<ul style="list-style-type: none"> <li>Off: Light switch is not in TNS position.</li> <li>On: Light switch in TNS position.</li> </ul>	—	Light switch
HAZARD_SW	Off/On	<ul style="list-style-type: none"> <li>Off: Hazard warning switch is off.</li> <li>On: Hazard warning switch is on.</li> </ul>	—	Hazard warning switch
IG_POSITION	OFF/ACC/ ON/CRANK	<p>Displays power status controlled by the start stop unit</p> <ul style="list-style-type: none"> <li>OFF: Start stop unit controls ignition switch off</li> <li>ACC: Start stop unit controls ignition switch ACC</li> <li>ON: Start stop unit controls ignition switch ON (engine off)</li> <li>CRANK: Start stop unit controls cranking at ignition switch ON</li> </ul>	<ul style="list-style-type: none"> <li>When the push button start is operated, the start stop unit performs power source switching and displays the PID value of the power source position in which control was performed.</li> <li>If the push button start operation and PID value do not match, and a power source status of another unit differs from the PID value, inspect the input power source of the other unit because the power source control of the start stop unit is normal.</li> </ul>	Ignition switch
INFO_SW	Off/ SW1_On/ SW2_On/ SW3_On/ Unknown/ Invalid	<ul style="list-style-type: none"> <li>Off: Steering switch UP/DOWN/INFO switch is not pressed.</li> <li>SW1_On: UP switch is pressed.</li> <li>SW2_On: DOWN switch is pressed.</li> <li>SW3_On: INFO switch is pressed.</li> <li>Unknown: Steering switch UP/DOWN/INFO switch signal is not determined.</li> <li>Invalid: Steering switch malfunction is received.</li> </ul>	Displays INFO switch position of steering switch input to start stop unit. Steering switch signal is input to start stop unit via clock spring.	Steering switch
INHIBIT_SW*1	Off/On	<ul style="list-style-type: none"> <li>Off: Selector lever is not in P and N positions.</li> <li>On: Selector lever is in P or N position.</li> </ul>	—	Transaxle range sensor
LG/ T_LK_SW*5	Off/On	<ul style="list-style-type: none"> <li>Off: Request switch (liftgate) is off.</li> <li>On: Request switch (liftgate) is on.</li> </ul>	—	Request switch (liftgate)
LG/ T_UNL_SW	Off/On	<ul style="list-style-type: none"> <li>Off: Liftgate opener switch is off.</li> <li>On: Liftgate opener switch is on.</li> </ul>	—	Liftgate opener switch
LL_SW_D_LK	Off/On	<ul style="list-style-type: none"> <li>Off: Front door lock-link switch (driver's side) is in unlock.</li> <li>On: Front door lock-link switch (driver's side) is in lock.</li> </ul>	—	Front door lock-link switch (driver's door)
NUM_TRNSMIT	—	Displays the number of the remote transmitters programmed to the start stop unit.	—	Start stop unit
P_RANGE_SW*1	Off/On	<ul style="list-style-type: none"> <li>Off: NOT P position switch is off.</li> <li>On: NOT P position switch is on.</li> </ul>	—	NOT P position switch
R_FOG_SW	Off/On	<ul style="list-style-type: none"> <li>Off: Fog light switch is not in R.FOG position.</li> <li>On: Fog light switch is in R.FOG position.</li> </ul>	—	Rear fog light switch
RELAY_ACC	Off/On	<ul style="list-style-type: none"> <li>Off: ACC relay drive is off.</li> <li>On: ACC relay drive is on.</li> </ul>	—	ACC relay
RELAY_IG1	Off/On	<ul style="list-style-type: none"> <li>Off: IG1 relay drive is off.</li> <li>On: IG1 relay drive is on.</li> </ul>	—	IG1 relay
RELAY_IG2	Off/On	<ul style="list-style-type: none"> <li>Off: IG2 relay drive is off.</li> <li>On: IG2 relay drive is on.</li> </ul>	—	Front body control module (FBCM)

PID	Unit/ Operation	Data contents	Data read/use method	Inspection item(s)
RF_RECEP_ST	Initial/ Transmitter/ RF_Response	Displays radio reception status from the remote transmitter <ul style="list-style-type: none"> <li>Initial: Signal from remote transmitter is not received by start stop unit</li> <li>Transmitter: Signal by button operation on remote transmitter is received by start stop unit</li> <li>RF_Response: During remote transmitter authorization, response signal from remote transmitter is received by start stop unit</li> </ul>	When verifying the PID value while operating the remote transmitter buttons, if "Transmitter" is displayed it can be determined that the transmission between the remote transmitter, keyless receiver, and start stop unit is normal.	Keyless receiver
RF_TRNS_NUM	Initial/No.1/ No.2/No.3/ No.4/No.5/ No.6	When pressing the unlock button of the remote transmitter, the registration number of the remote transmitter sending radio waves to the start stop unit is displayed. <ul style="list-style-type: none"> <li>Initial: Registration number of remote transmitter cannot be received</li> <li>No.1: Registration number No.1 remote transmitter is received</li> <li>No.2: Registration number No.2 remote transmitter is received</li> <li>No.3: Registration number No.3 remote transmitter is received</li> <li>No.4: Registration number No.4 remote transmitter is received</li> <li>No.5: Registration number No.5 remote transmitter is received</li> <li>No.6: Registration number No.6 remote transmitter is received</li> </ul>	When DTC B13D3:16 (Low remote transmitter battery voltage) is detected, the registration number of the remote transmitter in which the battery voltage has decreased is displayed in the snapshot data item TRNS_NUM_L. Display the registration number of the remote transmitter using the PID, verify the remote transmitter with the low battery voltage, and inspect the battery condition of the target remote transmitter.	Keyless receiver
RQ_SW_LF*4	Off/On	<ul style="list-style-type: none"> <li>Off: Request switch (LF) is off.</li> <li>On: Request switch (LF) is on.</li> </ul>	—	Request switch (LF)
RQ_SW_RF*4	Off/On	<ul style="list-style-type: none"> <li>Off: Request switch (RF) is off.</li> <li>On: Request switch (RF) is on.</li> </ul>	—	Request switch (RF)
SECURITY_I	Off/On	<ul style="list-style-type: none"> <li>Off: Security indicator light is turned off.</li> <li>On: Security indicator light is illuminated.</li> </ul>	—	Instrument cluster
SFT_LK_SOL*1	Off (Lock)/ On (Unlock)	<ul style="list-style-type: none"> <li>Off (Lock): Shift-lock is operated.</li> <li>On (Unlock): Shift-lock is released.</li> </ul>	—	Selector lever component
SSB_1	Off/On	<ul style="list-style-type: none"> <li>Off: Push button start switch 1 is off.</li> <li>On: Push button start switch 1 is on.</li> </ul>	—	Push button start
SSB_2	Off/On	<ul style="list-style-type: none"> <li>Off: Push button start switch 2 is off.</li> <li>On: Push button start switch 2 is on.</li> </ul>	—	Push button start
SSB_AMBER	Off/On	<ul style="list-style-type: none"> <li>Off: Push button start indicator light (amber) is turned off.</li> <li>On: Push button start indicator light (amber) is illuminated.</li> </ul>	—	Push button start
SSB_GREEN	Off/On	<ul style="list-style-type: none"> <li>Off: Push button start indicator light (green) is turned off.</li> <li>On: Push button start indicator light (green) is illuminated.</li> </ul>	—	Push button start
SSB_ILLMI	Off/On	<ul style="list-style-type: none"> <li>Off: START/STOP/ENGINE indicator light is turned off.</li> <li>On: START/STOP/ENGINE indicator light is illuminated.</li> </ul>	—	Push button start
START_RLY_1	V	Voltage at start stop unit terminal 2V is displayed.	—	Starter relay
START_RLY_2	V	Voltage at start stop unit terminal 1D is displayed.	—	Starter relay
STR_A_ANGLE*5	° (deg)	Steering angle sensor A signal aiming angle is displayed.	—	Steering angle sensor
STR_B_ANGLE*5	° (deg)	Steering angle sensor B signal aiming angle is displayed.	—	Steering angle sensor

PID	Unit/ Operation	Data contents	Data read/use method	Inspection item(s)
STR_AB_ANG <sup>*5</sup>	° (deg)	Displays steering angle signal (absolute angle) • Steering wheel in neutral position: Near <b>0 degrees</b> • Steering wheel turned to left: Changes from <b>0 degrees</b> to positive • Steering wheel turned to right: Changes from <b>0 degrees</b> to negative	—	Steering angle sensor
STR_ANGLE <sup>*5</sup>	Without/ With	• Without: Steering angle sensor is not equipped. • With: Steering angle sensor is equipped.	—	Steering angle sensor
STR_ANGLE_S_A <sup>*5</sup>	V	Voltage at the steering angle sensor A signal is displayed.	—	Steering angle sensor
STR_ANGLE_S_B <sup>*5</sup>	V	Voltage at the steering angle sensor B signal is displayed.	—	Steering angle sensor
STR_ANGLE_S_V <sup>*5</sup>	V	Steering angle sensor power supply voltage is displayed.	—	Steering angle sensor
TURN_SW_L	Off/On	• Off: Turn switch is in position other than LH. • On: Turn switch is in LH position	—	Turn Switch
TURN_SW_R	Off/On	• Off: Turn switch is in position other than RH. • On: Turn switch is in RH position.	—	Turn Switch
VPWR_ACC	V	Displays ACC power supply voltage input to start stop unit	If there is a malfunction in the ACC power supply voltage input to the start stop unit, the keyless entry system and push button start system do not operate normally because PID item VPWR_ACC is used for ACC power on/off determination.	• Start stop unit • ACC relay • Battery
VPWR_B1	V	Displays B+ power supply (ROOM fuse) voltage input to start stop unit	If there is a malfunction in the B+ power supply (ROOM fuse) voltage input to the start stop unit, the keyless entry system does not operate normally because PID item VPWR_B1 is used for determining whether or not there is a ROOM fuse inserted.	• Start stop unit • Battery
VPWR_B2	V	Displays B+ power supply (AT fuse) voltage input to start stop unit	When the ROOM fuse is removed, the B+ power supply (AT fuse) is the start stop unit power supply. If there is a malfunction in the B+ power supply (AT fuse) voltage input to the start stop unit when the ROOM fuse is removed, the push button start system does not operate normally.	• Start stop unit • Battery
VPWR_B3	V	Voltage at start stop unit terminal 2X (+B3 power supply) is displayed.	—	• Start stop unit • Battery
VPWR_IG1	V	Displays IG1 power supply voltage input to start stop unit	If there is a malfunction in the IG1 power supply voltage input to the start stop unit, the keyless entry system and the push button start system do not operate normally because PID item VPWR_IG1 is used for IG1 power on/off determination.	• Start stop unit • IG1 relay • Battery

PID	Unit/ Operation	Data contents	Data read/use method	Inspection item(s)
WASHER_F	Off/On	<ul style="list-style-type: none"> <li>Off: Windshield washer switch is in OFF position.</li> <li>On: Windshield washer switch is in ON position.</li> </ul>	—	Windshield washer switch
WASHER_R	Off/On	<ul style="list-style-type: none"> <li>Off: Rear washer switch is not in ON position.</li> <li>On: Rear washer switch is in ON position.</li> </ul>	—	Rear washer switch
WIP_F_INT	Off/On	<ul style="list-style-type: none"> <li>Off: Windshield wiper switch is not in INT and AUTO positions.</li> <li>On: Windshield wiper switch is in INT or AUTO position.</li> </ul>	—	Windshield wiper switch
WIP_F_LOW	Off/On	<ul style="list-style-type: none"> <li>Off: Windshield wiper switch is not in LO position.</li> <li>On: Windshield wiper switch is in LO position.</li> </ul>	—	Windshield wiper switch
WIP_INT_E_A	Low/High	<ul style="list-style-type: none"> <li>Low: Windshield wiper switch INT encoder A value is low.</li> <li>High: Windshield wiper switch INT encoder A value is high.</li> </ul>	—	Windshield wiper and washer switch
WIP_INT_E_B	Low/High	<ul style="list-style-type: none"> <li>Low: Windshield wiper switch INT encoder B value is low.</li> <li>High: Windshield wiper switch INT encoder B value is high.</li> </ul>	—	Windshield wiper and washer switch
WIP_INT_E_C	Low/High	<ul style="list-style-type: none"> <li>Low: Windshield wiper switch INT encoder C value is low.</li> <li>High: Windshield wiper switch INT encoder C value is high.</li> </ul>	—	Windshield wiper and washer switch
WIP_R_INT	Off/On	<ul style="list-style-type: none"> <li>Off: Rear wiper switch is not in INT position.</li> <li>On: Rear wiper switch is in INT position.</li> </ul>	—	Rear wiper switch
WIP_R_ON	Off/On	<ul style="list-style-type: none"> <li>Off: Rear wiper switch is not in ON position.</li> <li>On: Rear wiper switch is in ON position.</li> </ul>	—	Rear wiper switch

\*1 : ATX

\*2 : MTX

\*3 : With cruise control system

\*4 : With advanced keyless entry system

\*5 : With AFS (adaptive front lighting system), smart city brake support (SCBS), or park assist system