3. Headlight System

A: WIRING DIAGRAM

Refer to "Headlight System" in the wiring diagram. <Ref. to WI-253, WIRING DIAGRAM, Headlight System.>

B: INSPECTION

1. AUTO HEADLIGHT SYSTEM CHECK

	Step	Check	Yes	No
1	**CHECK HEADLIGHT ILLUMINATION.** Set the lighting switch to the switch 1 (TAIL) and switch 2 (HEAD).	Do the tail and headlight illuminate?	Go to step **2**.	Check the combination switch (light) and headlight bulb.
2	**CHECK CURRENT DATA.** Using the Subaru Select Monitor, display the data of «Lighting AUTO input». NOTE: For detailed procedures, refer to "PC application help for Subaru Select Monitor".	Does the display switch between OFF ←→ ON when the lighting switch is moved to AUTO position?	Go to step **3**.	Go to step **8**.
3	**CHECK CURRENT DATA.** 1) Using the Subaru Select Monitor, display the data of «Illumination Sensor Output». 2) Measure the voltage when the area around the light control sensor, which was dark, becomes bright. **Illumination sensor output** **Dark condition: Approx. 0.6 V or less** **Bright condition: Approx. 3.0 V or more**	Is the voltage output according to the brightness?	Check and replace the body integrated unit. • Inspection:<Ref. to BC(diag)-2, Basic Diagnostic Procedure.> • Replacement: <Ref. to SL-78, Body Integrated Unit.>	Go to step **4**.
4	**CHECK HARNESS.** 1) Disconnect the connectors from body integrated unit and light control sensor. 2) Check the harness between body integrated unit and light control sensor. **Connector & terminal** **(B280) No. 19 — (i89) No. 2:** **(B280) No. 29 — (i89) No. 1:** **(B281) No. 1 — (i89) No. 3:**	Is harness normal?	Go to step **5**.	Repair or replace the harness.
5	**CHECK HARNESS.** 1) Connect the connector of body integrated unit. 2) Turn the ignition to ON. 3) Measure the voltage between light control sensor connector and chassis ground. **Connector & terminal** **(i89) No. 3 (+) — Chassis ground (–):**	Is the voltage 4.5 — 5.5 V?	Go to step **6**.	Replace the body integrated unit. <Ref. to SL-78, Body Integrated Unit.>
6	**CHECK BODY INTEGRATED UNIT.** Measure the resistance between the body integrated unit and chassis ground. **Connector & terminal** **(B280) No. 29 — Chassis ground:**	Is the resistance less than 10 Ω?	Go to step **7**.	Replace the body integrated unit. <Ref. to SL-78, Body Integrated Unit.>
7	**CHECK LIGHT CONTROL SENSOR.** 1) Connect the light control sensor connector. 2) Check the light control sensor. <Ref. to LI-22, INSPECTION, Light Control Sensor.>	Is the light control sensor normal?	Go to step **8**.	Replace the light control sensor.
8	**CHECK COMBINATION SWITCH (LIGHT).** Check the combination switch (light). <Ref. to LI-20, INSPECTION, Combination Switch (Light).>	Is the combination switch (light) normal?	Go to step **9**.	Replace the combination switch (light).

Step	Check	Yes	No
9 **CHECK HARNESS.** 1) Disconnect the connectors of body integrated unit and combination switch (light). 2) Check the harness between body integrated unit and combination switch (light). *Connector & terminal* *(B71) No. 19 — (B281) No. 16:*	Is harness normal?	Check and replace the body integrated unit. • Inspection: <Ref. to BC(diag)-2, Basic Diagnostic Procedure.> • Replacement: <Ref. to SL-78, Body Integrated Unit.>	Repair or replace the harness.

2. CHECK OF WELCOME LIGHTING SYSTEM (WELCOME LIGHT DOES NOT ILLUMINATE)

Step	Check	Yes	No
1 **CHECK BODY INTEGRATED UNIT SETTING.** Display the data of «Welcome Light Off Delay Time(Approaching)» or «Welcome Light Off Delay Time(Exiting)» using the Subaru Select Monitor. NOTE: For detailed procedures, refer to "PC application help for Subaru Select Monitor".	Is the setting ON?	Go to step **2**.	Turn the setting to ON.
2 **CHECK BODY INTEGRATED UNIT SETTING.** Display the data of «Illumination Sensor Setting» using Subaru Select Monitor.	Is the setting "ON"?	Go to step **3**.	Turn the setting to "ON".
3 **CHECK AUTO HEADLIGHT.** 1) Set the lighting switch to AUTO position. 2) Make the light control sensor vicinity dark. 3) Turn the ignition to ON.	Do the parking light, tail and headlight illuminate?	Go to step **4**.	Check the auto headlight system. <Ref. to LI-6, AUTO HEADLIGHT SYSTEM CHECK, INSPECTION, Headlight System.>
4 **CHECK DOOR LOCK.** Operate the door lock using the keyless transmitter or the access key.	Do the lock and unlock operate properly?	Go to step **5**.	• Check keyless entry system. <Ref. to SL-17, INSPECTION, Keyless Entry System.> • Check keyless access system. <Ref. to KPS(diag)-2, Basic Diagnostic Procedure.>
5 **CHECK BODY INTEGRATED UNIT.** 1) Display the data of «IG power supply voltage» using Subaru Select Monitor. 2) Turn the ignition to ON.	Is the voltage 10 — 15 V?	Replace the body integrated unit. <Ref. to SL-78, Body Integrated Unit.>	Repair or replace the harness.

3. CHECK OF WELCOME LIGHTING SYSTEM (WELCOME LIGHT REMAINS ON)

	Step	Check	Yes	No
1	**CHECK BODY INTEGRATED UNIT SETTING.** Display the data of «Welcome Light Off Delay Time(Approaching)» or «Welcome Light Off Delay Time(Exiting)» using the Subaru Select Monitor. NOTE: For detailed procedures, refer to "PC application help for Subaru Select Monitor".	Is the illumination time setting correct?	Go to step **2**.	Set the illumination time.
2	**CHECK THE LIGHTS.** Set the lighting switch to the switch 1 (TAIL) and switch 2 (HEAD).	Do the parking light, tail light and headlight illuminate?	Go to step **3**.	Check the combination switch (light) and each light circuit.
3	**CHECK BODY INTEGRATED UNIT.** Using the Subaru Select Monitor, display the data of «Driver's door SW input».	Does the display switch between OFF ←→ ON when driver's door is opened/closed?	Go to step **4**.	Check the door switch. <Ref. to SL-20, CHECK DOOR SWITCH, INSPECTION, Keyless Entry System.>
4	**CHECK DOOR LOCK.** Operate the door lock using the keyless transmitter or the access key.	Do the lock and unlock operate properly?	Replace the body integrated unit. <Ref. to SL-78, Body Integrated Unit.>	• Check keyless entry system. <Ref. to SL-17, INSPECTION, Keyless Entry System.> • Check keyless access system. <Ref. to KPS(diag)-2, Basic Diagnostic Procedure.>

4. CHECK LIGHTING SWITCH

Refer to "Combination Switch (Light)". <Ref. to LI-20, INSPECTION, Combination Switch (Light).>

5. CHECK DIMMER & PASSING SWITCH

Refer to "Combination Switch (Light)". <Ref. to LI-20, INSPECTION, Combination Switch (Light).>

C: NOTE

For operation procedures of each component of the headlight system, refer to the respective section.
- Headlight Assembly: <Ref. to LI-23, Headlight Assembly.>
- Headlight bulb: <Ref. to LI-29, Headlight Bulb.>
- Combination switch (light): <Ref. to LI-18, Combination Switch (Light).>
- Light control sensor: <Ref. to LI-21, Light Control Sensor.>