

## Procedures for Replacing / Exchanging LED Search Light Modules (Applicable Merchandise: HR-1012 ⇒ HRL-2070U/G)

Thank you very much for your purchase of the LED Search Light.

This manual explains the procedures for replacing and / or exchanging currently used small halogen lamp search lights (HR-1012U/G) with LED search lights (HRL-2070U/G)

Confirm the model you purchased, read carefully, and follow the procedures as closely as is possible.

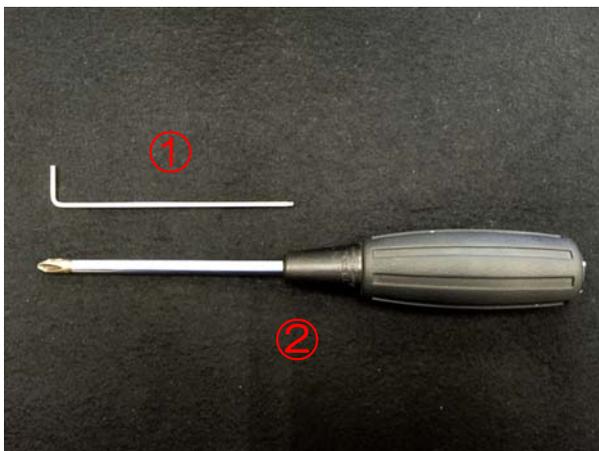
Things to prepare

【Parts】 LED Module for HRL-2070U/G (Model no.: LSM30)



【Tools】

① 2mm hexagonal wrench / ② Phillips head screwdriver (Type No. 2) / ③ Opposing 7mm closed wrench or spanner

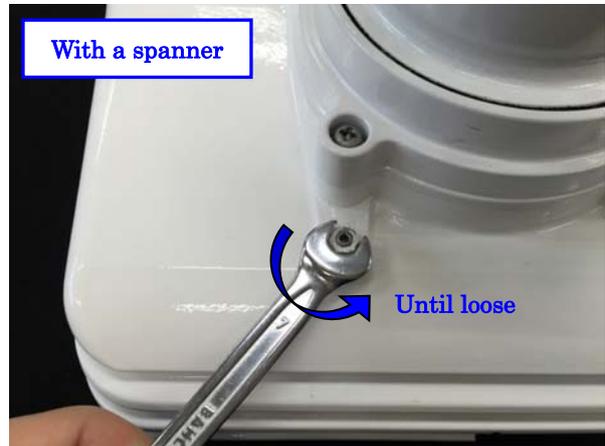
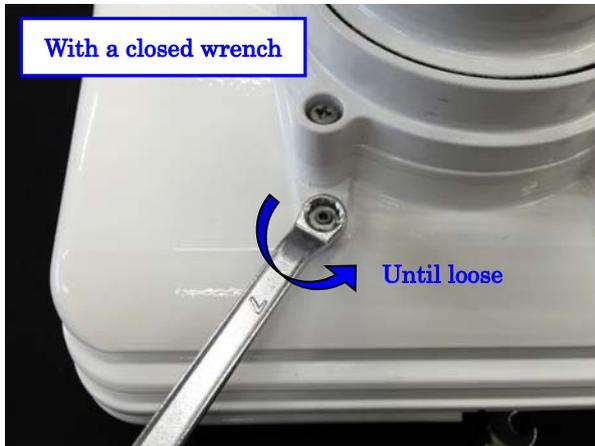


## 【Procedures for Replacing / Exchanging】

### A. 【Remove the powerhead from search light HR-1012】

A-1. (Operation: Loosen powerhead's fixed bolt. / Tools: ① and ③)

- ◆ Loosen hexagonal nuts (M4 × 2 locations) on the back of the light. (※ Only until loose.)



- ◆ Remove set screws (M4 × 2 locations) with hexagonal wrench. (※ Be sure to not misplace set screws.)



A-2. (Operations: Remove mounting screws (M4 × 2 locations) on frame. / Tool: ②)

- (※ Be sure to not drop or lose the rim or mounting screws.)

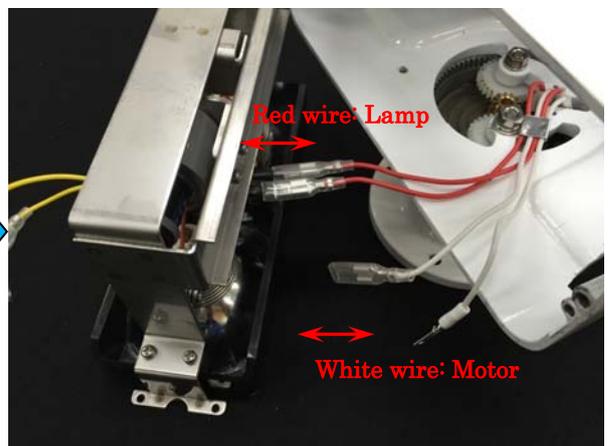
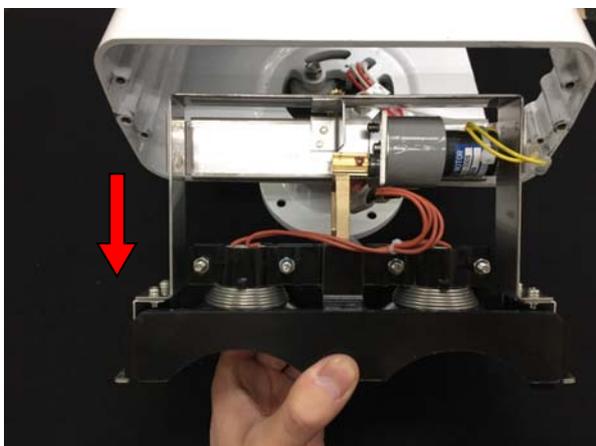


A-3. (Operations: Remove mounting screws (M4 × 4 locations) from mirror holder. / Tool: ②).  
 (※ Be sure to not drop or lose the mirror holder or mounting screws.)



A-4. (Operations: Pull out power head and remove lamp and motor from the connection terminal. / Tools: None required.)

(※ Be sure to not drop the power head or hurt yourself on metal edges.)



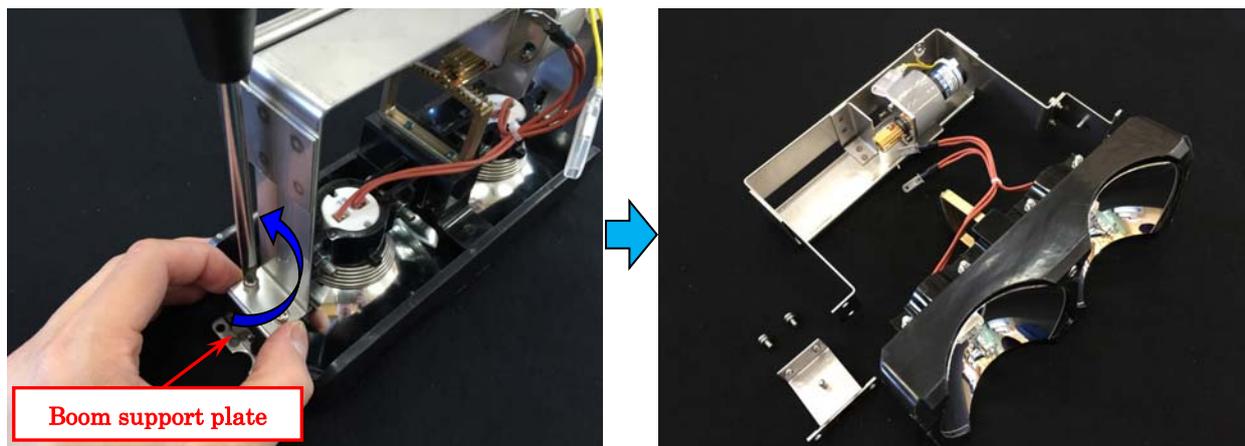


**B. [Replace with LED module to power head.]**

B-1. (Operations: Remove mirror holder assembly. / Tool: ②)

◆ Remove screws (M4 × 2 locations) on the left and right sides of the boom support plate, and remove the mirror holder assembly.

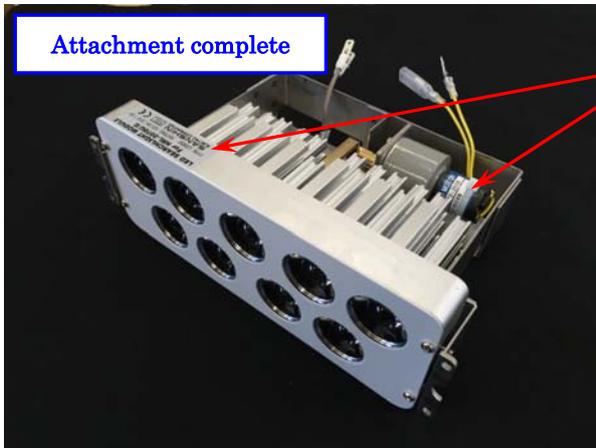
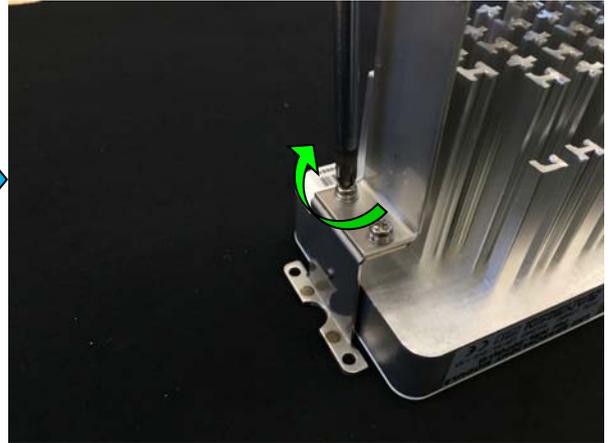
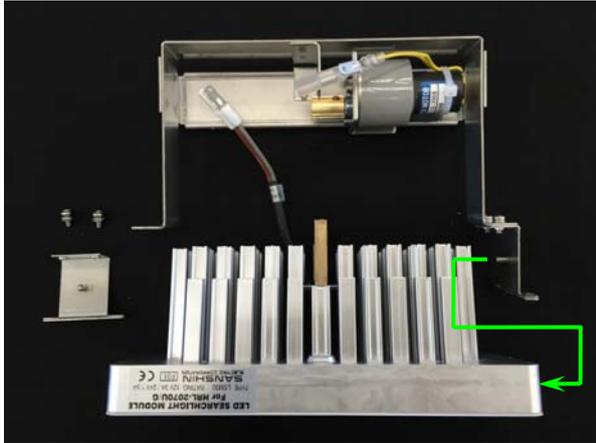
(※ Be sure to not drop or lose the mirror holder or mounting screws.)



B-2. (Operations: Attach LED module to power head. / Tool: ②)

◆ Do procedures in reverse from when removing mirror holder assembly and attach LED module.

(※ Be sure to check the direction of the LED module.)

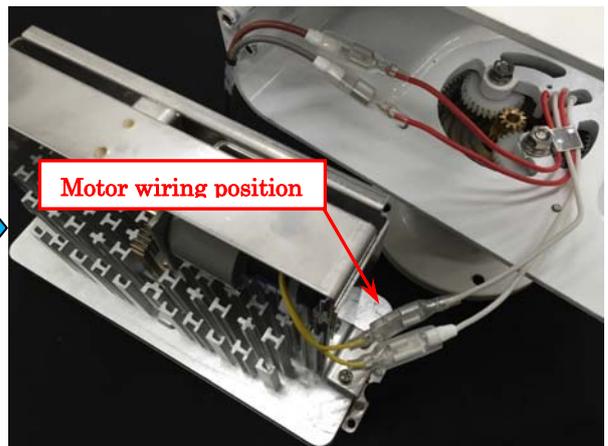
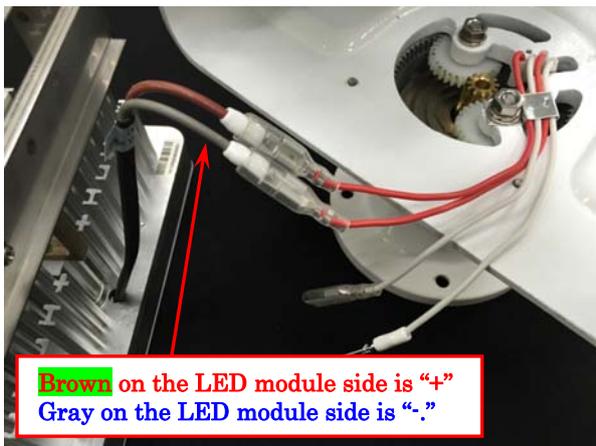


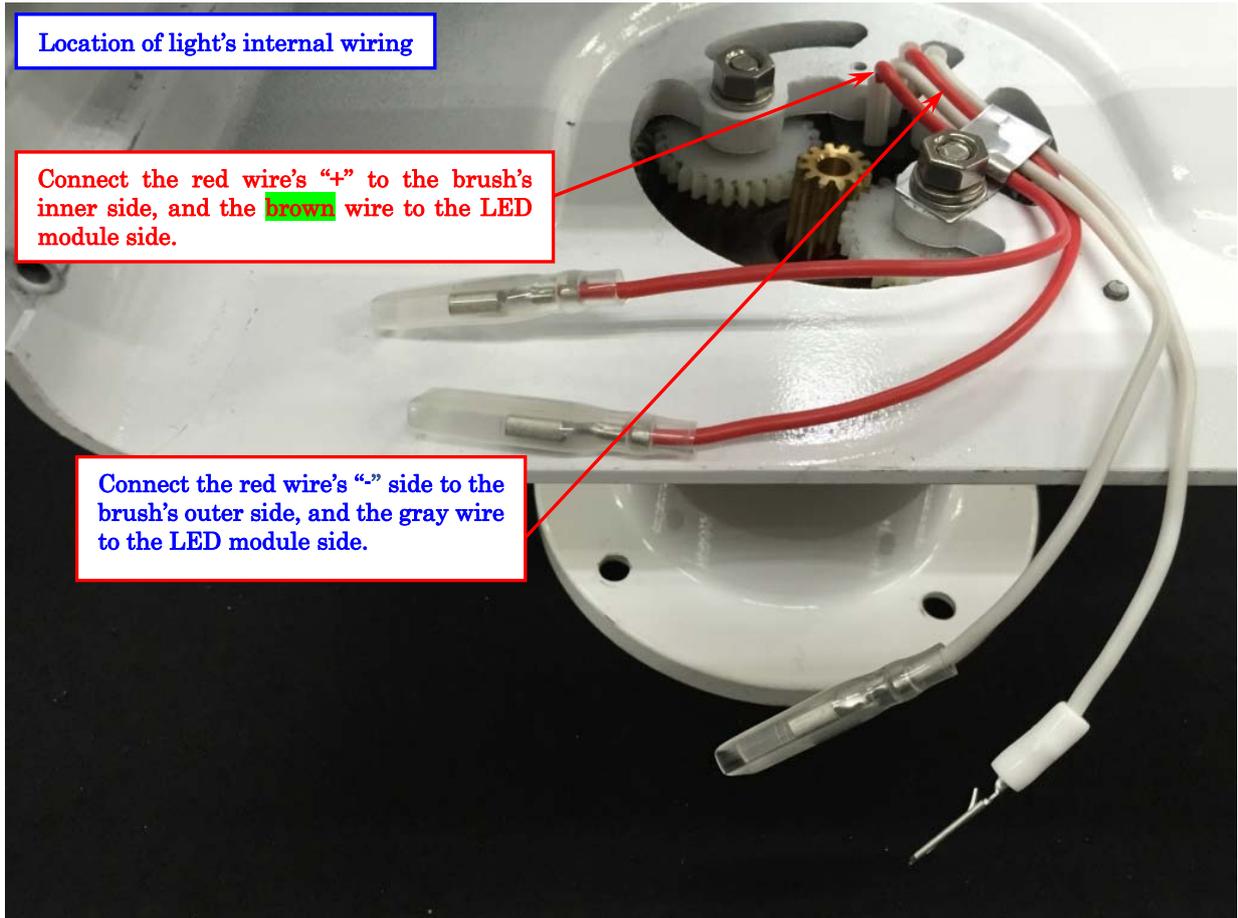
Assemble so that the motor's nameplate and the LED module's nameplate are on top.

**C. 【Attach LED powerhead to light.】**

C-1. (Operations: Connect light's electric wire to LED powerhead. / Tools: None required)

(※ Please note that the LED has polarity and the wire inside the slip ring will be "+.")

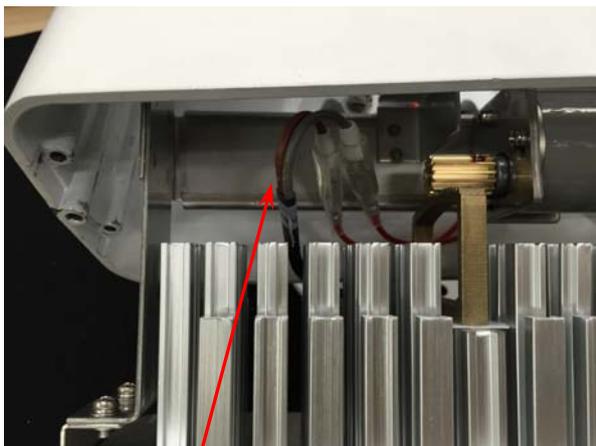




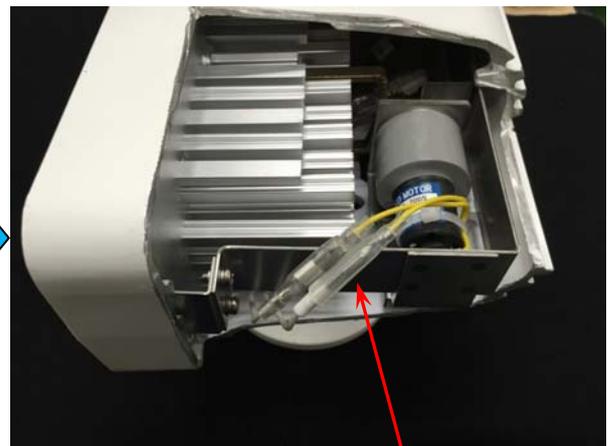
C-2. (Operation: Return LED powerhead to the lamp. / Tools: None required.)

◆ When returning the powerhead to the light, be sure to note where the wires sit.

(※ Be sure that the LED module's wires do not come in contact with the gear.)



Make it a habit to install so that LED wires do not come in contact with gears, and have them rise up behind the radiation fins.



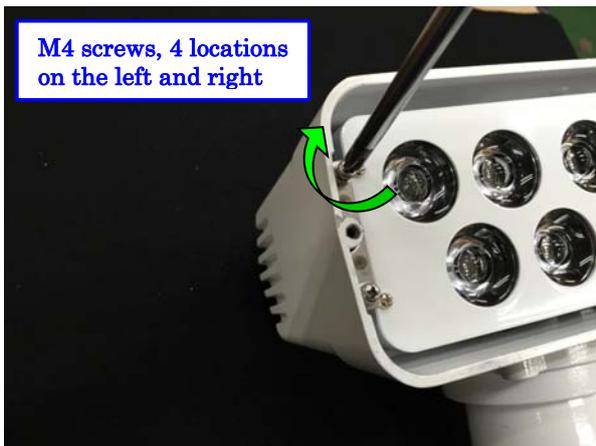
Motor wires turn to powerhead side.



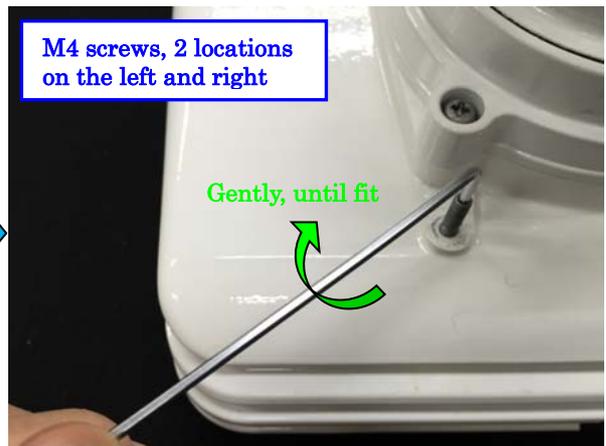
**【Supplemental information】**  
In order to show where wires sit, these photographs were taken with a unit with the lamp body partially removed.

C-3. (Operation: Return LED powerhead to lamp. / Tools: ①, ②, ③)

◆ Tighten screws in reverse order when removing the halogen powerhead.



M4 screws, 4 locations  
on the left and right



M4 screws, 2 locations  
on the left and right

Gently, until fit



