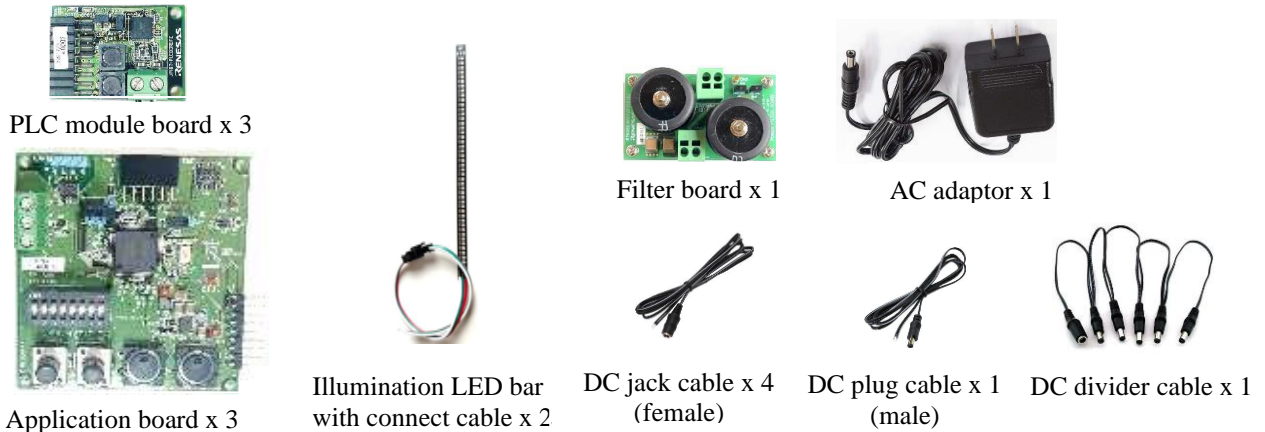


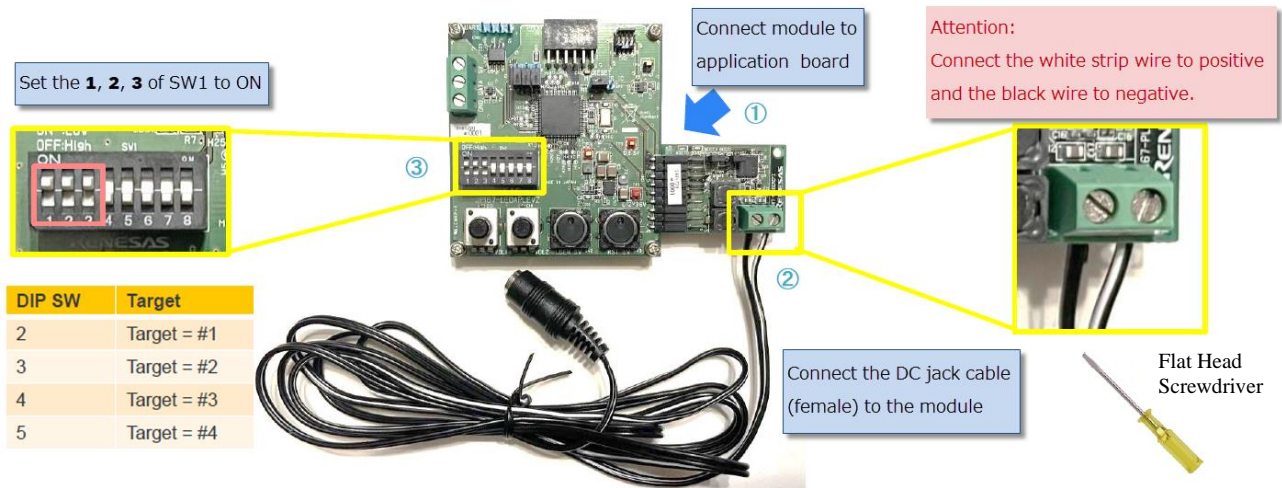
Introduction

The JP167 DC-PLC evaluation kit enables the user to control an LED setup by using Power Line Communication (PLC) on the DC power line with the modem IC R9A06G061GNP. The kit includes 3pcs each of the PLC module and application boards, 2pcs of the LED bar with connection cable, 1 filter board, 1 AC adaptor, 4 pcs of DC jack cables, 1 DC plug cable and 1 DC divider cable as shown below. By following this quick start guide, you will be able to quickly demo the JP167 DC-PLC for LED control.



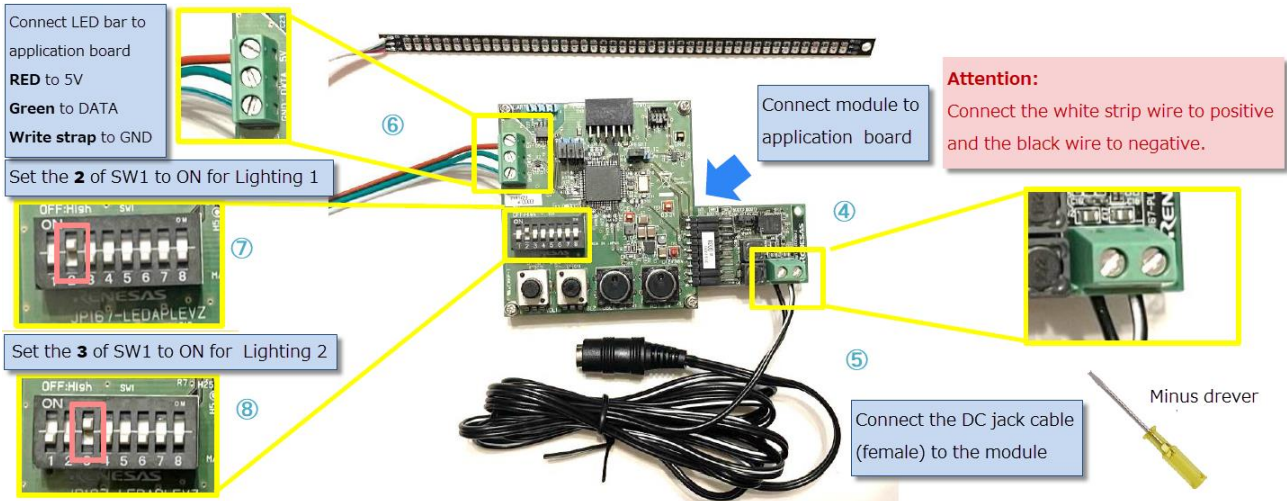
Step 1: Preparing the master node (control side)

Take 1 application and 1 PLC module board, ①connect them together, ②then connect the DC jack (please pay attention to the positive and negative electrodes) as below using a flat head screwdriver. ③Set switches **1, 2, 3** of SW1 to ON. Keep switches **4 to 8** of SW1 in the OFF position. (Note: **1** of SW1 is for setting the master or slave setting, **2 to 5** of SW1 are for target communication node address setting. **6 to 8** of SW1 are for other usage.)



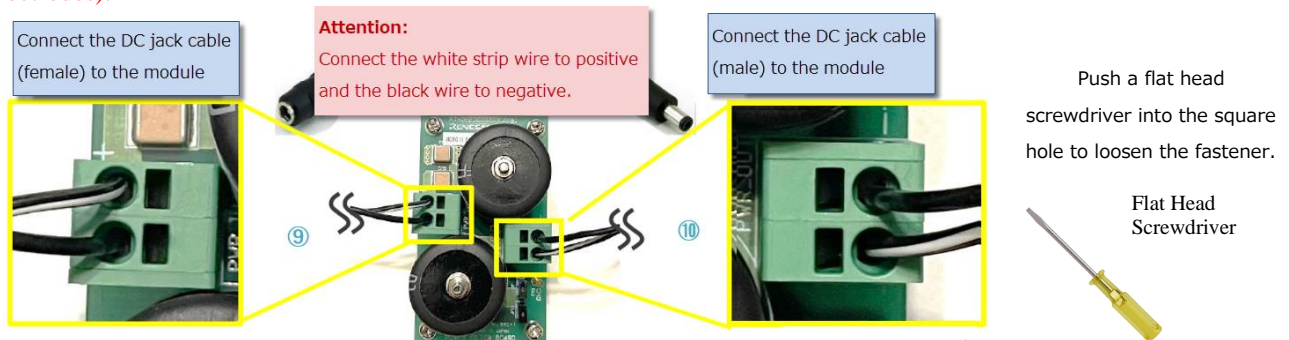
Step 2: Preparing the slave nodes (LED lighting side)

Take 2 pcs each of the application and PLC module boards, ④connect each set together, ⑤then connect the DC jack to each module board (please pay attention to the positive and negative electrodes). ⑥Connect the LED bar to the application board (RED to 5V, Green to DATA and White strip to GND) using the screwdriver as seen below. ⑦Set switches **1** and **3** of SW1 to OFF and switch **2** of SW1 to ON for node 1, and ⑧set switches **1** and **2** of SW1 to OFF and switch **3** of SW1 to ON for node 2. Switches **4 to 8** of SW1 should be kept OFF on both nodes. (Note: **1** of SW1 is for setting the master or slave setting, **2 to 5** of SW1 are for target communication node address setting. **6 to 8** of SW1 are for other usage.)



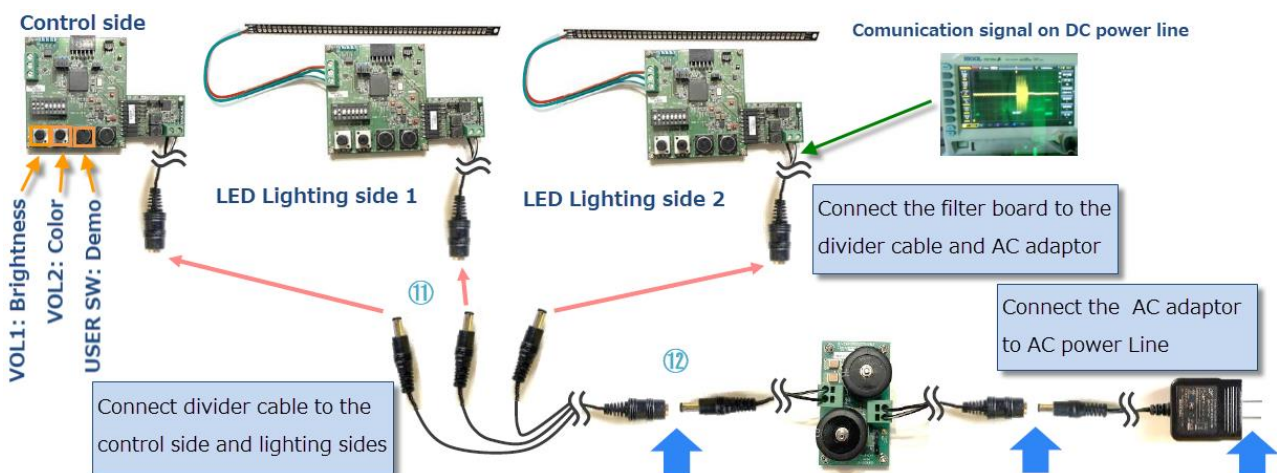
Step 3: Preparing the filter board

Take the filter board and connect the ⑨ DC jack and ⑩ DC plug to it (please pay attention to the positive and negative electrodes).



Step 4: System power on and PLC demonstration

⑪ Connect the divider cable to the control side and LED lighting sides. ⑫ Connect the filter board to the divider cable input and AC adaptor output. Lastly, connect the AC adaptor to an AC power Line.



After powering on the boards, turn VOL1 on the Master Node (Control Side) to control the brightness of the LED bars. Turn VOL2 to control the color of the LED bars. The USER SW button is for demo mode (the brightness and color will automatically vary during a brief demonstration).

It is also possible to set switch 2 or 3 of SW1 on both sides (Control and LED lighting boards) to experience the PLC communication to the boards individually or simultaneously. For more details on the board specifications, please refer to the DC-PLC Evaluation Kit User's Guide (R12QS0056EJ0x00).