7-3. Details of Image Stabilization Controls

① AIDC Sensor adjustment
② Grid voltage and T/C correction
③ Optimum Exposure Lamp voltage correction
④ AE Sensor gain adjustment

● The following is the details of each image stabilization control.

①-1 AIDC Sensor coarse adjustment

This adjustment represents a coarse adjustment of the AIDC Sensor when the ordinary control of only the LED current cannot cover part-to-part variations in the AIDC Sensor (installation, circuit, deterioration, etc.). The surface of the PC Drum whose charges have been neutralized is exposed to light from the LED. The output current from the AIDC Sensor goes through the load resistance selected by a 4-bit analog switch and the 4-bit analog switch selects the load resistance so that the resultant voltage becomes 1V or less.

①-2 AIDC Sensor fine adjustment

If the AIDC Sensor is dirty with toner, it results in an error being produced in the sensor output voltage value, providing a false reference value. The surface of the PC Drum which has been erased is exposed to light from the LED. The LED current value is varied through pulse width control so that the output voltage from the AIDC Sensor becomes 1V.

Controlled Part	Control Signal	ON	OFF	WIRING DIAGRAM
AIDC Sensor	PJ11A-7A	Pulse output		1-I

② Grid voltage and T/C correction

The Image Erase Lamp produces a solid-black pattern on the surface of the PC Drum and the AIDC Sensor reads the pattern. The grid voltage is then varied so that the output from the AIDC Sensor remains at a given level or higher, which ensures that the toner-to-carrier ratio on the surface of the PC Drum becomes constant.

If an even greater solid-black density is required when the upper control limit of the grid voltage has already been reached, the target control value of T/C is raised in 0.5% steps up to 7%, thus terminating the adjustment sequence.

	Control Value	1 Step	Initial Value
Grid Voltage	550 to 790V	30V	550V