<Control>

• Toner Empty Detection Control

The Sub Hopper toner empty detection sequence is carried out while Sub Hopper Toner Replenishing Motor M9 remains energized.

↓

Sub Hopper Toner Empty Switch S106 is actuated.

↓

Master Board PWB-A

A LOW Sub Hopper Toner Empty signal is input to pin 57 (APB1) of IC4A.

↓

Main Hopper Toner Replenishing Motor M8 is energized to turn the Toner Bottle one turn, thus replenishing toner from the Main Hopper to Sub Hopper.

↓

A toner-empty condition is detected at the timing at which M9 is next energized.

The above operations are repeated and, if the Sub Hopper Toner Empty signal does not go LOW even after the Toner Bottle has been turned ten turns, the Toner Bottle is not turned again.

↓

The copier determines that there is a toner-empty condition in the Sub Hopper, lighting up the Add Toner Indicator on the control panel.

• Control After Toner Empty Detection

The Front Door is swung down, Toner Bottle replaced, and the Front Door closed.

↓

Master Board PWB-A

M8 is energized to turn continuously the Toner Bottle so that toner is supplied from the Main Hopper to Sub Hopper.

↓

M9 is energized once and kept so for approx. 1.7 seconds for every three turns of the Toner Bottle. The Sub Hopper toner empty detection sequence is carried out a maximum eight times.

↓

As soon as the signal from S106 goes HIGH, M8 is deenergized to stop the Toner Bottle.

↓

The Add Toner Indicator on the control panel goes out.