13-5. ATDC Sensor

The copier compares the toner-to-carrier ratio (T/C) of the developer in the Developer Mixing Chamber detected by ATDC Sensor UN3 during a copy cycle with the reference ratio (6%) and, if it finds a lower ratio than the reference, replenishes the supply of toner. The standard output voltage of the ATDC Sensor for the reference T/C (6%) is 2.5V.

If the toner-to-carrier ratio becomes lower than 2.5% in a toner-empty condition, the copier inhibits the initiation of a new copy cycle (this feature can be enabled or disabled by a Tech. Rep. Choice mode). As soon as a ratio of 3% or more is recovered, the copier permits the initiation of a new copy cycle.

If the Front Door is swung open and closed with a T/C ratio of less than 3%, the copier initiates an Auxiliary Toner Replenishing sequence. (The toner-empty condition is canceled as soon as a T/C ratio of 3.5% is reached and the copier completes the Auxiliary Toner Replenishing sequence when the target level is reached.)

ATDC Sensor Automatic Adjustment

An automatic adjustment of the ATDC Sensor is made in the F8 or FF Test Mode operation.

*When F8 (or FF) is Run after Starter Has Been Changed:

Following the execution of the starter setup mode, upon pressing the Start Key, the copier CPU reads the output value of the ATDC Sensor and adjusts the ATDC Sensor gain so that the output value becomes 2.5V.

NOTE: If an F8 (or FF) operation is run at a time when the starter has not been changed, it can result in a wrong T/C reference value being set by the copier. Avoid casual use of F8.

If the setting value has been cleared because of the RAM Board being replaced, use the "Level History" function of the Tech. Rep. mode to return the "ATDC Ref. Value" to the original value before the board was replaced.

Controlled Part	Control Signal	T/C Ratio	Standard Output Voltage	WIRING DIA-GRAM
UN3	PJ11A-2B	6.0(%)	2.5(V)	1-J