5 WATCHDOG (CPU OVERRUN MONITOR) FUNCTION

5-1. Overview

The watchdog function monitors whether any of the CPUs mounted in the copier overrun. If this function detects that a CPU overruns, the copier automatically resets the CPU, thereby restarting the logic circuit and mechanism.

Even if a copier CPU operates erratically due to electrical noise, therefore, the copier is able to recover from the faulty condition so that the number of visits made by the Technical Representative for CPU overrun can be minimized.

5-2. Configuration

The copier has three printed-circuit boards each on which a CPU is mounted:
- SCP (Scanner Control Processor) Board PWB-J that controls the optical system;
- MSC (Macro System Controller) Board PWB-B that controls the control panel and system; and,
- Master Board PWB-A which controls the copier, Paper Feed Cabinet and Duplex Unit.

In addition to these, each of the control boards for the Data Controller, Duplexing/Automatic Document Feeders, and Sorter/Staple Sorter is equipped with a CPU.

The watchdog functions are summarized as follows:
- Each of the copier CPUs monitors whether or not it overruns.
- The PWB-B monitors the communications conditions of the CPUs in the Duplexing/Automatic Document Feeder and Data Controller.
- The PWB-A monitors the communications conditions of the CPUs in the Sorter and Staple Sorter.
- The control boards for the Paper Feed Cabinet and Duplex Unit do not have a CPU in them. Instead, the PWB-A in the copier controls their operations.

