

## Memory Status after Mode Changes and Power Interruptions

Some parts of I/O memory, such as the CIO Area and Work area, will be cleared when the operating mode is changed between RUN or MONITOR mode and PROGRAM mode. These are called non-holding areas. To hold the contents of these areas when the operating mode is changed, turn ON the IOM Hold Bit (A500.12) in the Auxiliary Area

Mode change	Non-holding areas	Holding Areas
	<ul style="list-style-type: none"> <li>I/O Area</li> <li>Data Link Area</li> <li>CPU Bus Unit Area</li> <li>Special I/O Unit Area</li> <li>Work Area</li> <li>Timer PV and Completion Flags</li> <li>Index Registers</li> <li>Data Registers</li> <li>Task Flags (Auxiliary Area bits/words are held or not held depending on the address.)</li> </ul>	<ul style="list-style-type: none"> <li>HR Area</li> <li>DM Area</li> <li>EM Area</li> <li>Counter PV and Completion Flags (Auxiliary Area bits/words are held or not held depending on the address.)</li> </ul>
<b>RUN or MONITOR to PROGRAM</b>	Cleared*1	Held
<b>PROGRAM to RUN or MONITOR</b>		
<b>RUN to MONITOR or MONITOR to RUN</b>	Held	Held
<b>Power interruption reset*2</b>	Cleared*3	Held

\*1 Memory is cleared on if the IOM Hold Bit is OFF. If it is ON, data will be held as follows:

I/O Memory Hold Bit status (A500.12)	I/O Memory			Output bits allocated to Output Units		
	Mode changed between PROGRAM and RUN/MONITOR	Fatal error		Mode changed between PROGRAM and RUN/MONITOR	Fatal error	
		Fatal error other than FALS	FALS executed		Fatal error other than FALS	FALS executed
<b>OFF</b>	Cleared	Cleared	Held	OFF	OFF	OFF
<b>ON</b>	Held	Held	Held	Held	OFF: Values in the I/O memory in the CPU Unit will be held when a fatal error occurs, but the outputs from Basic Output Units will turn OFF.	

\*2 The IOM Hold Bit (A500.12) will be turned OFF when a power interruption is reset. To retain the status, select the *IOM Hold Bit* Check Box in the Startup Hold Settings Tab Page of the PLC Setup using the CX-Programmer, and then transfer the PLC Setup.

\*3 The Task Flags will be cleared regardless of the status of IOM Hold Bit (A500.12).