Show

A.2.1.1 Bit Type Logic System Variables - #L System Variables

Variable Name	Description	READ	WRITE
Ladder Reference Flag			
#L_RunMonitorA	ON while in RUN mode	✓	-
#L_AlwaysON	Always ON	✓	-
Calculation Flag			
#L_CalcZero	Zero flag	✓	-
#L_CalcCarry	Overflow flag	✓	-
System Settings			
#L_ScanModeSW	Logic Mode Setting	✓	-
#L_AutoRunSW	Mode setting at startup	✓	-
#L_InOutSW	Enabling external input and output enable setting	✓	-
#L_FaultStopSW	Continue on error switch setting	✓	-
#L_SyncRunSW	Synchronous Communication with External Devices/PLCs	✓	-
Operation Information			
#L_UnlatchClear	Reset to zero for volatile areas	✓	✓
#L_LatchClear	Reset to zero for retentive areas	✓	✓
Time			
#L_Clock100ms	100 millisecond clock pulse	✓	-
#L_Clock1sec	1 second clock pulse	✓	-
#L_Clock1min	1 minute clock pulse	✓	-
Address Refresh			
#L_RefreshEnable	Address Refresh Enable Flag	✓	-
Error information			

#L_BatteryErr	Battery malfunction	✓	-
#L_Error	Logic error	✓	-
#L_StopPending	Logic stop wait flag	✓	✓
#L_Fault	Error handler stop flag	✓	✓
#L_IOFault	I/O error flag	✓y	-

#L_RunMonitorA (ON while in RUN mode)

ON when the logic program is running, and OFF when the logic program is not running.

Because this is a read-only area, writing is not possible. If you write in this area, the operation may fail.

#L_AlwaysON (Always ON)

ON at the beginning of a logic scan, regardless of whether or not the logic program is used.

Because this is a read-only area, if OFF is written, in the program below the #L_AlwaysON bit is turned OFF.

ON is rewritten at the beginning of the next scan. Do not perform a write operation for #L_AlwaysON.

#L_CalcZero (Zero flag)

#L_CalcZero turns ON only when the operation instruction result is zero (0).

Every time an operation is executed, the contents of #L_CalcZero are rewritten.

After the execution of an operation, #L_CalcZero rewrites OFF or ON. Because this is a read-only area, writing is not possible.

#L_CalcCarry (Overflow flag)

Depending on the result after the execution of an operation, #L_CalcCarry turns ON only when a overflow occurs.

Every time an operation is executed, the contents of #L_CalcCarry are rewritten.

After the execution of an operation, #L_CalcCarry rewrites OFF or ON. Because this is a read-only area, writing is not possible.

#L_ScanModeSW (Logic Mode Setting)

You can check the operation mode of the logic program currently being executed.

When #L_ScanModeSW is ON, operation is in CPU Scan Percentage mode. When #L_ScanModeSW is OFF, operation is in Fixed Scan Time mode. Because this is a read-only area, writing is not possible.

#L_AutoRunSW (Mode setting at startup)

When the action setting at power ON is set to RUN, #L_AutoRunSW turns ON.

When the action setting at power ON is set to STOP, #L_AutoRunSW turns OFF.

Because this is a read-only area, writing is not possible.

#L_InOutSW (external input and output enable setting)

If the external input and output settings are enabled in the action settings at power ON, #L_InOutSW turns ON.

If the external input and output settings are disabled in the action settings at power ON, #L_InOutSW turns OFF.

Because this is a read-only area, writing is not possible.

#L_FaultStopSW (Continue on error switch setting)

When the continue on error switch is set to enable (stop when a continuous error occurs), #L_FaultStopSW turns ON.

When the continue on error switch is set to disable (continue when a coutinuous error occurs), #L_FaultStopSW turns OFF.

Because this is a read-only area, writing is not possible.

#L_SyncRunSW (Synchronous Communication with External Devices/PLCs)

If communication with external devices/PLCs is synchronized in the action settings when powering ON, #L_SyncRunSW turns ON.

If communication with external devices/PLCs is not synchronized in the action settings when powering ON, #L_SyncRunSW turns OFF.

Because this is a read-only area, writing is not possible.

#L_UnlatchClear (Reset volatile areas to zero)

Turn ON #L_UnlatchClear to request zero clear of the volatile area. (A rising edge is detected and the area is cleared to zero.)

This variable operates only when the logic program is in STOP.

The setting value and time base of the timer and the setting value of the counter cannot be cleared to zero. The system variables and addresses of the connection devices cannot be cleared to zero.

Reading and writing is possible in this area.

#L_LatchClear (Reset retentive areas to zero)

Turn ON #L_LatchClear to request zero clear of retentive areas. (A rising edge is detected and the area is cleared to zero.)

This bit operates only when the logic program is in STOP.

The setting value and time base of the timer and the setting value of the counter cannot be cleared to zero. The system variables and addresses of connection devices cannot be cleared to zero.

Reading and writing is possible in this area.

#L_Clock100ms (100 millisecond clock pulse)

The variable turns ON and OFF repeatedly with a frequency of 50 milliseconds OFF time and 50 milliseconds ON time.

Because this is a read-only area, writing is not possible.

When the Scan Time is longer than the clock pulse, ON and OFF are not repeated. Confirm and set the Scan Time.

#L_Clock1sec (1 second clock pulse)

The variable turns ON and OFF repeatedly with a frequency of 500 milliseconds OFF time and 500 milliseconds ON time.

Because this is a read-only area, writing is not possible.

When the Scan Time is longer than the clock pulse, ON and OFF are not repeated. Confirm and set the Scan Time.

#L_Clock1min (1 minute clock pulse)

The variable turns ON and OFF repeatedly, with a frequency of 30 seconds OFF time and 30 seconds ON time.

Because this is a read-only area, writing is not possible.

When the Scan Time is longer than the clock pulse, ON and OFF are not repeated. Confirm and set the Scan Time.

#L_RefreshEnable

When the address refresh is enabled, the bit is turned ON.

- **Enable Condition**

1. First PLC communication scan is complete. (When more than one PLC is connected, all first communication scans are complete.)
2. PLC communication is normal.

3. **Disable Condition**

1. First PLC communication scan is not complete. (When more than one PLC is connected, all first communication scans are not complete.)
2. PLC communication failure. (When there are multiple PLCs, communication failure has occurred on more than one PLC.)

#L_BatteryErr (Battery error)

Turns on when battery malfunction information is detected on the display unit.

If this bit turns ON, the #L_BatteryErr bit does not turn OFF until the display unit is reset or the power turns OFF.

Because this is a read-only area, writing is not possible.

#L_Error (Logic error)

The bit turns ON in the following cases.

- Logic is running and an error occurs (stores error status in #L_CalcErrCode)
- I/O driver produces an I/O error (#L_IOFault turns ON)

If this bit turns ON, the #L_Error bit does not turn OFF until the display unit is reset or the power turns OFF.

Because this is a read-only area, writing is not possible.

#L_StopPending (Logic stop wait flag)

The #L_StopPending bit remains ON Until #L_StopScans reaches 0.

Until #L_StopScans is zero, the #L_StopPending bit remains ON for the duration of the scans until the logic stops.

#L_Fault (Error handler stop flag)

This flag is referenced at the end of the "error handler" subroutine to determine whether to stop or continue the execution of the logic program.

The execution of the logic program on the display unit will stop at the end of ERRH routine if the #L_Fault bit is ON.

Reading and writing is possible in this area.

#L_Fault is not used without an "error handler" subroutine.

#L_IOFault (I/O error flag)

#L_IOFault turns ON if an I/O error occurs on the I/O driver and an error status is stored in #L_IOStatus.

Retains this value until the error is restored or the display unit is reset.

#L_IOFault[0]: Internal Driver 2

#L_IOFault[1]: Internal Driver 1

#L_IOFault[2]: External Driver 1

#L_IOFault[3]: Reserved