Appendix E

Ladder Instruction Error Code Cross-Reference

Run-time errors are reported as follows:

- For block instruction errors, the error code is displayed to the right of the ENO parameter, while the error code and accompanying text message appears in the Error Log.
- For relay instructions, the error code and the text message appears in the Error Log.

You can access the Error Log from Program Properties.

E.1 Error Codes 3001-3010

Error Code:	Text Description:	How To Correct the Error:
3001	Cannot divide by zero	Define the divisor of the DIV, MDV, or MOD instruction to be a value other than zero.
3002	The result of the arithmetic calculation is too large for Out	Use smaller values or re-arrange the calculation so that errors do not occur.
3003	The result is larger than what Out's data type supports	Specify a larger data type for Out. For example, if you are using integers, specify the data type as a double integer.
3004	Minimum was greater than Maximum	For the LIMIT instruction, make sure the value for Mx is larger than that for Mn.
3005	An illegal BCD digit was found	In the BCD_TO instruction, use a valid BCD value for In.
3006	Tried to convert a negative value to BCD	In the TO_BCD instruction, use a positive value for In.
3007	Label does not exist	Add a LABEL instruction that uses the same name as referenced on a JMP instruction.

Error Code:	Text Description:	How To Correct the Error:
3008	The number of bits to rotate is negative	For the rotate instructions, make sure that N is within the allowable range for the data type used for In.
3009	The number of bits to rotate is too large	For the rotate instructions, make sure that N is within the allowable range for the data type used for In.
3010	The bit number is negative	Make sure the bit number is positive.

E.2 Error Codes 3011-3020

Error Code:	Text Description:	How To Correct the Error:
3011	The bit number is too large	Make sure the bit is within the appropriate range.
3012	The array index is negative	For parameters that accept array variables, specify a valid array element.
3016	The array index is too large	For parameters that accept array variables, specify a valid array element.
3020	The value in Length_Out is too large for array block's Out	Make sure Length_In and Length_Out are within the range of the array.

E.3 Error Codes 3021-3030

Error Code:	Text Description:	How to Correct the Error:
3021	The value in Length1 is too large for array block's In1	Make sure the lengths are within the range of the array.
3022	The value in Length2 is too large for array block's In2	Make sure the lengths are within the range of the array.
3023	The value in Length_Out is less than or equal to 0	Make sure Length_In and Length_Out are within the range of the array.
3024	The value in Length1 is less than or equal to 0	Make sure the lengths are within the range of the array.
3025	The value in Length2 is less than or equal to 0	Make sure the lengths are within the range of the array.
3026	Array's length inputs are greater than 1 but are not equal	For the AR1 instruction, make sure Length_In and Length_Out are within the range of the array.
3027	The Elems/Scan input is less than 0	Make sure the value is at least 0.
3028	Illegal slot number of an IOR or IOW instruction is selected	Correct the slot and register or address parameters used in the instruction.

Error Code:	Text Description:	How to Correct the Error:
3029	An illegal register of an IOR or IOW instruction is selected	Correct the slot and register or address parameters used in the instruction.
3030	An illegal option of an IOR or IOW instruction is selected	Correct the number in the option field. The valid range is 1 to 4.

E.4 Error Codes 3031-3035

Error Code:	Text Description:	How To Correct the Error:
3031	Cannot take the square root of a negative number	Make sure the input for the SQRT operation is not a negative number.
3032	The Length input is negative	For the MVB instruction, specify a value within the appropriate range for the input in error.
3033	The Length input is greater than 32	For the MVB instruction, specify a value within the appropriate range for the input in error.
3034	Length_In is larger than the In input	Make sure Length_In and Length_Out are within the range of the array.
3035	Length_In is less than or equal to 0	Make sure Length_In and Length_Out are within the range of the array.