

LOGIC PROCESSOR PROGRAMMING

In order for the Long Vehicle Overspeed Detection System to function as designed, it is necessary for the cabinet to have a 4G modem and the intersection to be configured in the central ATMS software.

Front Panel
Main Menu >Controller >More >User Programs >Definition

Web Interface
Home >Controller >User Programs Configuration >User Programs Definition

Modify Programs 1 and 2 as shown below and save changes.

Program 1

Statement	Result	Index	Operation	Parameter A	Index	Parameter B	Index	Delay	Ext
59	-	-	Run Program A	Number	2	-	-	0.0	0.0
60	-	-	Run Program A	Number	3	-	-	0.0	0.0

LOGIC STATEMENT DESCRIPTION

Statement 59 Description: Turns on Program 2 to monitor Phase 2 LVOD system.
Statement 60 Description: Turns on Program 3 to monitor Phase 6 LVOD system.

Program 2

Statement	Result	Index	Operation	Parameter A	Index	Parameter B	Index	Delay	Ext
1	Local Variable	1	Is Module A input B ON	Number	1	Number	13	0.0	0.0
2	Local Variable	2	Result=(A if B)	Number	1	Local Variable	1	240.0	0.0
3	Phase Hold	2	Result=(A XOR B)	Local Variable	1	Local Variable	2	0.0	0.0
4	Custom Alarm	12	Result=A	Local Variable	2	-	-	0.0	0.0

LOGIC STATEMENT DESCRIPTION

Statement 1 Description: Reads LVOD system input on Phase 2 approach.
Statement 2 Description: Reads LVOD system input on Phase 2 approach and turns on if the input is on continuously for 240 seconds.
Statement 3 Description: Sets Phase 2 Hold "On" when the LVOD system input is active, but turns off if 240 seconds has elapsed.
Statement 4 Description: When LVOD system input for phase 2 is active continuously for 240 seconds, turns on Custom Alarm 12.

Program 3

Statement	Result	Index	Operation	Parameter A	Index	Parameter B	Index	Delay	Ext
1	Local Variable	1	Is Module A input B ON	Number	1	Number	14	0.0	0.0
2	Local Variable	2	Result=(A if B)	Number	1	Local Variable	1	240.0	0.0
3	Phase Hold	6	Result=(A XOR B)	Local Variable	1	Local Variable	2	0.0	0.0
4	Custom Alarm	13	Result=A	Local Variable	2	-	-	0.0	0.0

LOGIC STATEMENT DESCRIPTION

Statement 1 Description: Reads LVOD system input on Phase 6 approach.
Statement 2 Description: Reads LVOD system input on Phase 6 approach and turns on if the input is on continuously for 240 seconds.
Statement 3 Description: Sets Phase 6 Hold "On" when the LVOD system input is active, but turns off if 240 seconds has elapsed.
Statement 4 Description: When LVOD system input for phase 6 is active continuously for 240 seconds, turns on Custom Alarm 13.

LOGIC PROGRAM DESCRIPTION

Program 1: This program includes logic specific to the general operation of this signal. It also includes logic to enable the other logic programs that control the Long Vehicle Overspeed Detection (LVOD) system operation.
Program 2: This program places a hold on phase 2 when phase 2 LVOD input is active. It will also disable phase 2 LVOD operations and send an alarm through the ATMS software system if the LVOD input is continuously active for more than 240 seconds (Custom Alarm 12).
Program 3: This program places a hold on phase 6 when phase 6 LVOD input is active. It will also disable phase 6 LVOD operations and send an alarm through the ATMS software system if the LVOD input is continuously active for more than 240 seconds (Custom Alarm 13).

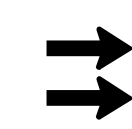
INPUT REMAPPING ASSIGNMENT PROGRAMING DETAIL FOR LVOD SYSTEM

Front Panel
Main Menu >Controller >More>Advanced IO >Input Points

Web Interface
Home >Controller >Advanced IO >Cabinet Configuration >Input Points

IO Module 1

Input Point	Description	Input Control Type	Index
13	C1-51	Not Active	0
14	C1-52	Not Active	0



LOGIC STATEMENT DESCRIPTION

This plan supersedes the plan sealed on 08/30/2024.

THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 03-1238
DESIGNED: Feb 2025
SEALED: 02/04/2025
REVISED: N/A

Electrical Detail - Sheet 6 of 7		DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED								
ELECTRICAL AND PROGRAMMING DETAILS FOR:	US 74 (Andrew Jackson Hwy) at International Blvd Division 3 Brunswick County Northwest	SEAL NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 032396 WILLIAM J. HAMILTON								
	PLAN DATE: February 2025 EXULT PROJ. NO: 143001 PREPARED BY: SD Wilder REVIEWED BY: WJ Hamilton	SIGNATURE DATE: 02/04/2025								
NC License #C-4445 304-F W. Millbrook Rd Raleigh, NC 27609 984.500.5426 www.exultengineering.com	 750 N. Greenfield Pkwy, Corner, NC 27529	REVISIONS <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>NO.</th> <th>REVISION</th> <th>INIT.</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> SIG. INVENTORY NO. 03-1238	NO.	REVISION	INIT.	DATE				
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