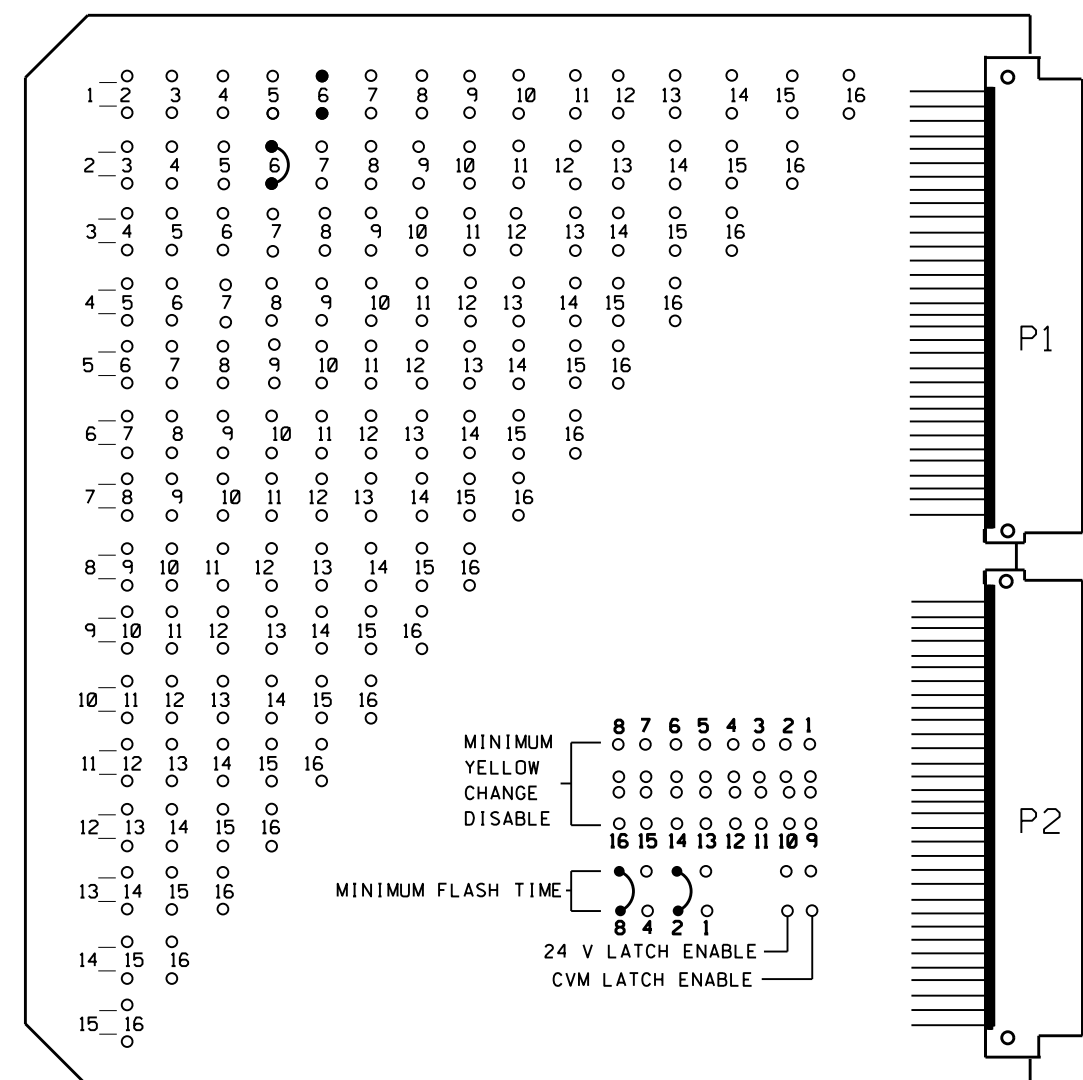


**EDI MODEL MMU2-16LEip
MALFUNCTION MANAGEMENT UNIT
PROGRAMMING DETAIL**

(program card and tables as shown below)



**FIELD CHECK ENABLE
DUAL IND ENABLE
RED FAIL ENABLE**

CHANNEL NUMBER	ENABLE/DISABLE
1	DISABLE
2	ENABLE
3	DISABLE
4	ENABLE
5	DISABLE
6	ENABLE
7	DISABLE
8	DISABLE
9	DISABLE
10	DISABLE
11	DISABLE
12	DISABLE
13	DISABLE
14	DISABLE
15	DISABLE
16	DISABLE

UNIT OPTIONS

OPTION	SETTING
RECURRENT PULSE	ON
WALK DISABLE	OFF
LOG CVM FAULTS	ON
EXTERN WATCHDOG	OFF
24V-2=12VDC	OFF
PGM CARD MEMORY	ON
LEDguard	ON
FORCE TYPE 16	OFF
TYPE12-SDLIC	OFF
VM 3x/Day Latch	ON

FLASHING YELLOW ARROW

CONFIG MODE	SETTING
CONFIG MODE	8
ENABLE CHANNEL PAIR, FYA	
CH 1-13	OFF
CH 3-14	OFF
CH 5-15	OFF
CH 7-16	OFF
RED/YEL INPUT ENABLE	
CH 1	OFF
CH 3	OFF
CH 5	OFF
CH 7	OFF
FLASH RATE FAULT	OFF
FYA TRAP DETECT	OFF

MMU PROGRAMMING NOTE

ENSURE YELLOW CHANGE PLUS RED CLEARANCE MONITORING IS ENABLED FOR ALL CHANNELS.

MMU PROGRAMMING CARD

- NOTES**
- To prevent "flash-conflict" problems, wire all unused load switches to flash red. Verify that signal heads flash in accordance with the signal plans.
 - To prevent red failures on unused monitor channels, tie unused load switch red outputs 1,3,5,7,8,9,10,11,12,13,14,15, and 16 to load switch AC+ by inserting a jumper plug in the unused load switch socket from pin 1 (LS AC+) to pin 3 (RED out). Make sure all flash transfer relays are in place.
 - Program controller to start up in phase 2 Green and 6 Green.
 - Set power-up flash time to 10 seconds and implement on the Malfunction Management Unit. Set controller power-up flash time to 0 seconds.
 - Enable simultaneous gap-out feature for all phases.
 - Program detectors in accordance with the manufacturer's instructions to accomplish the detection schemes shown on the signal design plans.
 - Program detector call delay and extension timing on the controller, unless otherwise specified.
 - Set all detector card unit channels to "presence" mode.
 - Program phases 2 and 6 for volume density operation.
 - The cabinet and controller are a part of the Cary Signal System.

SIGNAL HEAD HOOK-UP CHART

PHASE	1	2	3	4	5	6	7	8	2 PED	4 PED	6 PED	8 PED	OLA	OLB	OLC	OLD
SIGNAL HEAD NO.	NU	2I,22	NU	4I,42	43,44	45	NU	6I,62	NU	NU	NU	NU	NU	NU	NU	NU
RED		2R		4R	4R		6R									
YELLOW		2Y			4Y		6Y									
GREEN					4G											
RED ARROW				4R												
YELLOW ARROW				4Y	4Y											
FLASHING YELLOW ARROW																
GREEN ARROW		2G		4G	4G		6G									
Hand icon																
Person icon																

NU = Not Used

NOTE: Load switches 1 and 6 have been reassigned as vehicle load switches. See sheet 3 for programming details.

DETECTOR RACK SET-UP DETAIL

INSERT DETECTOR CARDS IN RACK ACCORDING TO THE DETAIL SHOWN BELOW. PARTICULAR DETECTOR CHANNELS WILL CALL PHASES INDICATED.

RACK #1

BIU	SLOT	SLOT	CH1		SLOT	SLOT	SLOT	SLOT	SLOT	SLOT	SLOT
			L7	Ø 4							
	EMPTY	EMPTY	CH2	Ø 4	EMPTY	EMPTY	EMPTY	EMPTY	EMPTY	EMPTY	EMPTY

WIRE LOOPS TO TERMINALS ON LOOP PANEL AS SHOWN IN THE CHART BELOW

LOOP NO.	LOOP PANEL TERMINALS
NU	L1A,L1B
NU	L2A,L2B
NU	L3A,L3B
NU	L4A,L4B
NU	L5A,L5B
NU	L6A,L6B
4B	L7A,L7B
4C	L8A,L8B
NU	L9A,L9B
NU	L10A,L10B
NU	L11A,L11B
NU	L12A,L12B
NU	L13A,L13B
NU	L14A,L14B
NU	L15A,L15B
NU	L16A,L16B

PROGRAM CONTROLLER DETECTORS ACCORDING TO THE SCHEDULE SHOWN IN THE CHART BELOW

CONTROLLER DETECTOR NO.	FUNCTION	TIMING	
		FEATURE	TIME (SEC)
1			
2			
3			
4			
5			
6			
7	Ø 4	DELAY	15
8	Ø 4	DELAY	15
9			
10			
11			
12			
13			
14			
15			
16			

SPECIAL DETECTOR NOTE

Install a video detection system for vehicle detection. Perform installation according to manufacturer's directions and NCDOT engineer approved mounting locations to accomplish the detection schemes shown on the Signal Design Plans for Zones 2A, 4A, 6A, and 6B.

EQUIPMENT INFORMATION

CONTROLLER.....2070EN2
 CABINETNC-8 TS-2
 SOFTWAREECONOLITE ASC/3-2070
 CABINET MOUNT.....BASE
 LOADBAY POSITIONS.....16
 LOAD SWITCHES USED.....2,4,6
 PHASES USED.....2,4,6
 OLA.....NOT USED
 OLB.....NOT USED
 OLC.....NOT USED
 OLD.....NOT USED

THIS ELECTRICAL DETAIL SUPERSEDES THE DETAIL SEALED ON 8/1/2019.

THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 05-0947T3
 DESIGNED: September 2019
 SEALED: 10/2/2019
 REVISED: N/A

Electrical Detail - Temp Design 3 (TMP Phase III, Step A)
 Sheet 1 of 3

ELECTRICAL AND PROGRAMMING DETAILS FOR: Prepared In the Offices of: 750 N. Greenfield Pkwy, Garner, NC 27529	SR 3015 (Airport Boulevard) at I-40 EB Ramps	SEAL Ryan W. Hough ENGINEER STATE OF NORTH CAROLINA License No. 036833
	Division 5 Wake County Morrisville PLAN DATE: October 2019 REVIEWED BY: PREPARED BY: S. Armstrong REVIEWED BY:	

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DocuSigned by: Ryan W. Hough 10/8/2019 4:03:26PM EST
 SIG. INVENTORY NO. 05-0947T3