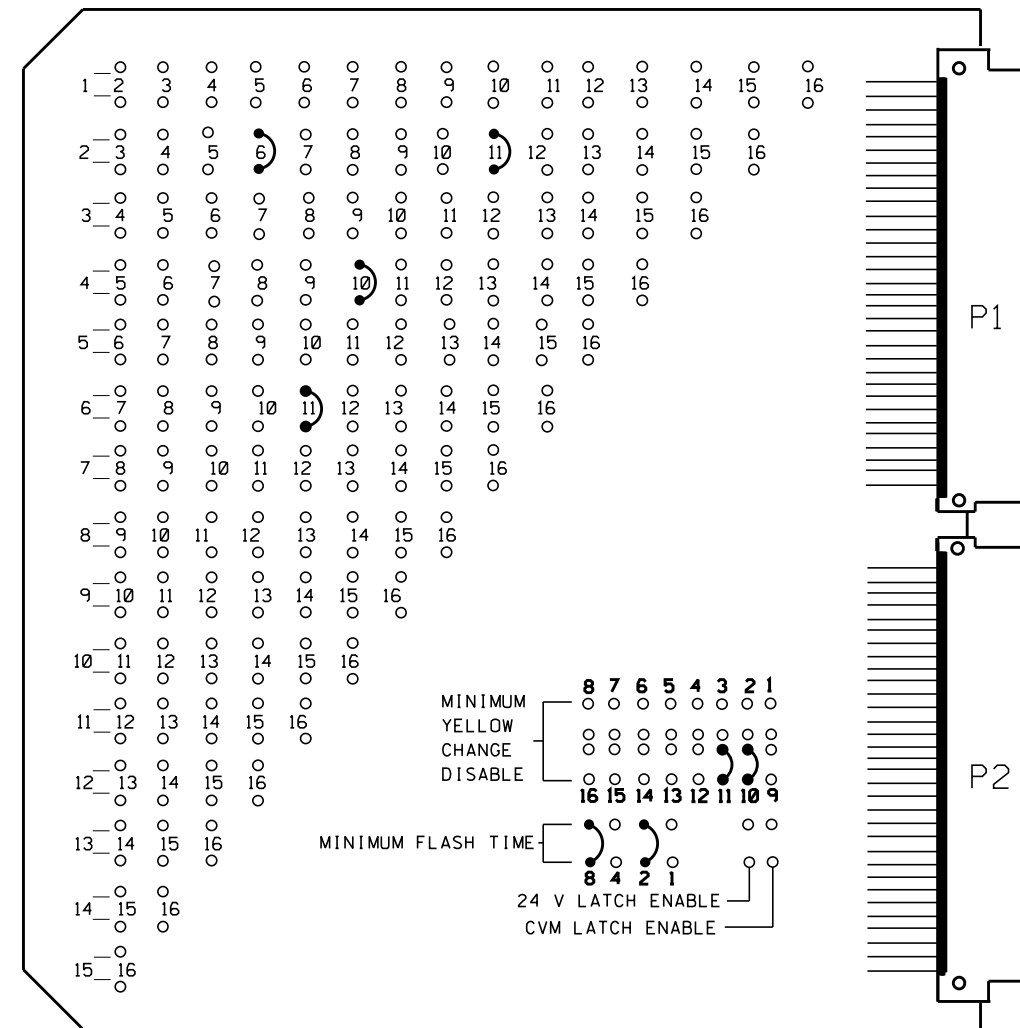


**EDI MODEL MMU-16LE
MALFUNCTION MANAGEMENT UNIT
PROGRAMMING DETAIL**

(program card and tables as shown below)



MMU PROGRAMMING CARD

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

OPTION	SETTING
RECURRENT PULSE	ON
WALK DISABLE	OFF
LOG CVM FAILTS	ON
EXTERN WATCHDOG	OFF
24V-2-12VDC	OFF
PCM CARD MEMORY	ON
LEDguard	ON
FORCE TYPE 16	OFF
TYPE12-SOLC	OFF

CH, GROUP FOR PROTECTED GREEN ARROWS	CH, 1,3,5,7
ENABLE CHANNEL PAIR, FYA	
CH 1-13	OFF
CH 3-14	OFF
CH 5-15	OFF
CH 7-16	OFF

MMU PROGRAMMING NOTE

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

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 & 12 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 phases 2 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, on controller unit, 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.
- This controller and cabinet are part of the Greenville Signal System.

SIGNAL HEAD HOOK-UP CHART												
PHASE	1	2	3	4	5	6	7	8	2 PED	4 PED	6 PED	8 PED
SIGNAL HEAD NO.	NU	21, 22 23	NU	41, 42 43	NU	61, 62 63	NU	NU	NU	P41, P42 P43, P44	P61, P62	NU
RED		2R		4R		6R						
YELLOW		2Y		4Y		6Y						
GREEN		2G		4G		6G						
RED ARROW												
YELLOW ARROW												
FLASHING YELLOW ARROW												
GREEN ARROW												
											10R	11R
											10G	11G

NU = Not Used

DETECTOR RACK SET-UP DETAIL

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

DETECTOR RACK #1

SLOT	CH1	CH1	CH1	SLOT	SLOT	SLOT	SLOT	SLOT	SLOT	SLOT
	L1	L7	L5							
BIU	∅ 2	∅ 6	∅ 4	EMPTY	EMPTY	EMPTY	EMPTY	EMPTY	EMPTY	EMPTY
	CH2 L2 ∅ 2	CH2 L8 NOT USED	CH2 L6 ∅ 4	EMPTY	EMPTY	EMPTY	EMPTY	EMPTY	EMPTY	EMPTY

COUNTDOWN PEDESTRIAN SIGNAL OPERATION

Countdown Ped Signals are required to display timing only during Ped Clearance Interval. Consult Ped Signal Module user's manual for instructions on selecting this feature.

LOAD SWITCH ASSIGNMENT DETAIL

(program controller according to schedule in chart below)

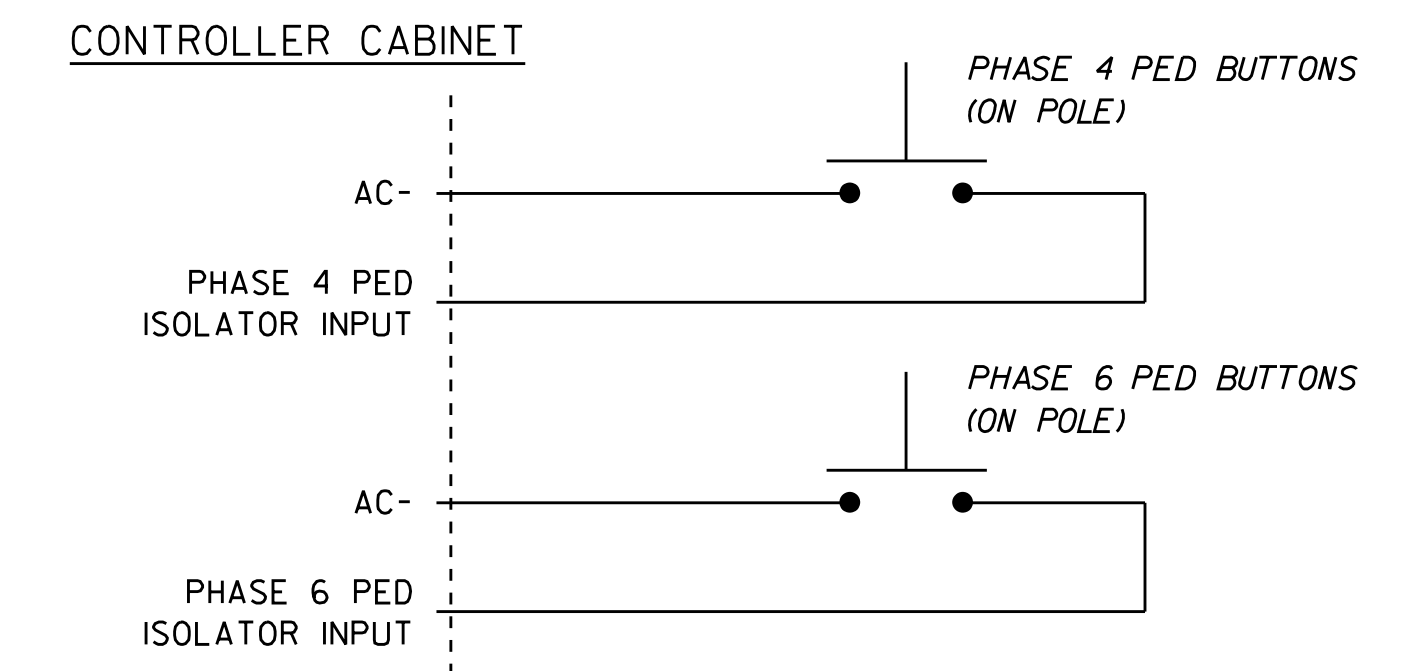
LOAD SWITCH NUMBER	FUNCTION
1	∅ 1
2	∅ 2
3	∅ 3
4	∅ 4
5	∅ 5
6	∅ 6
7	∅ 7
8	∅ 8
9	∅ 2 PED
10	∅ 4 PED
11	∅ 6 PED
12	∅ 8 PED

EQUIPMENT INFORMATION

CONTROLLER.....ECONOLITE ASC/2S-2100
 CABINETECONOLITE TS-2
 CABINET MOUNT.....BASE
 LOADBAY POSITIONS.....12
 LOAD SWITCHES USED.....2,4,6,S10,S11
 PHASES USED.....2,4,6,4PED,6PED

PEDESTRIAN PUSH-BUTTON WIRING DETAIL

(wire push-buttons as shown below)



THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 02-0007
 DESIGNED: JUNE 2014
 SEALED: 9/2/2014
 REVISED: N/A

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

LOOP NO.	LOOP PANEL TERMINALS
2A	L1A, L1B
2B	L2A, L2B
-	L3A, L3B
-	L4A, L4B
4A	L5A, L5B
4B	L6A, L6B
6A	L7A, L7B
-	L8A, L8B
-	L9A, L9B
-	L10A, L10B
-	L11A, L11B
-	L12A, L12B
-	L13A, L13B
-	L14A, L14B
-	L15A, L15B
-	L16A, L16B

NOTE
 BE SURE TO PROGRAM DETECTOR TYPES AND TIMERS (EXTEND AND DELAY) AS SHOWN ON THE SIGNAL PLANS.

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

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

FINAL DESIGN SHEET 1 OF 2

 PLANS PREPARED IN THE OFFICE OF: Kimley-Horn NC License #F-0102 P.O. Box 33068 Raleigh, NC 27636 (919) 677-2000	SR 1598/SR 1531 (DICKINSON AVENUE) AT SR 1571 (GRANDE AVENUE)	SEAL SEAL 032607 STACIE L. PHILLIPS ENGINEER
	DIVISION 2 PITT COUNTY GREENVILLE PLAN DATE: JUNE 2014 REVIEWED BY: SL PHILLIPS PREPARED BY: SP PENNINGTON REVIEWED BY:	DocuSigned by: Stacie Phillips 9/2/2014 SIGNATURE DATE SIG. INVENTORY NO. 02-0007