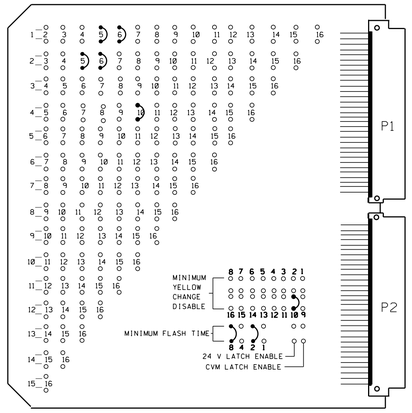
EDI MODEL MMU2-16LE
MALFUNCTION MANAGEMENT UNIT
PROGRAMMING DETAIL

(program card and tables as shown below)



MMU PROGRAMMING CARD

FIELD CHECK ENABLE DUAL IND ENABLE RED FAIL ENABLE	
CHANNEL NUMBER	ENABLE/ DISABLE
1	ENABLE
2	ENABLE
3	ENABLE
4	ENABLE
5	ENABLE
6	ENABLE
7	DISABLE
8	DISABLE
9	DISABLE
10	ENABLE
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
LEDgaurd	ON
FORCE TYPE 16	OFF
TYPE12-SDLC	OFF
VM 3x/Day Latch	ON

FLASHING YELLOW ARROW	
CONFIG MODE	A
ENABLE CHANNEL PAIR, FYA	
CH 1-9	OFF
CH 3-10	OFF
CH 5-11	OFF
CH 7-12	OFF
RED/YEL INPUT ENABLE	
CH 1-9	OFF
CH 3-10	OFF
CH 5-11	OFF
CH 7-12	OFF
FLASH RATE FAULT	OFF
FYA TRAP DETECT	OFF

MMU PROGRAMMING NOTE

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

NOTES

1. To prevent "Flash-conflict" problems, wire all unused load switches to flash red. Verify that signal heads flash in accordance with the signal plans.
2. To prevent red failures on unused monitor channels, tie unused load switch red outputs 7,8,9,11,12,13,14, 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.
3. Program controller to start up in phases 2 and 6 green.
4. Set power-up flash time to 10 seconds and implement on the Malfunction Management Unit. Set controller power-up flash time to 0 seconds.
5. Enable simultaneous gap-out feature, on controller unit, for all phases.
6. Program detectors in accordance with the manufacturer's instructions to accomplish the detection schemes shown on the signal design plans.
7. Program detector call delay and extension timing on the controller, unless otherwise specified.
8. Set all detector card unit channels to "presence" mode.
9. Program phases 2 and 6, on controller unit, for volume density operation.
10. This controller and cabinet are part of the Greenville Signal System.

PROJECT REFERENCE NO.	SHEET NO.
U-3315	SIG 1.4

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.	11	21,22 23,24	24	31	32,33	41	42	43,44	51,52	61,62 63,64	NU	NU	NU	P41, P42	NU	NU	NU	NU	NU	NU
RED		2R		3R	3R		4R	4R		6R										
YELLOW		2Y		3Y	3Y		4Y	4Y		6Y										
GREEN		2G		3G	3G		4G	4G		6G										
RED ARROW	1R					4R			5R											
YELLOW ARROW	1Y		3Y			4Y			5Y											
GREEN ARROW	1G		3G	3G		4G	4G		5G											
WALK														10G						
DON'T WALK														10R						

NU = Not Used

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.

EQUIPMENT INFORMATION

CONTROLLER.....ECONOLITE ASC/3
CABINET .....NC-8A [TS-2]
CABINET MOUNT.....BASE
LOADBAY POSITIONS.....16
LOAD SWITCHES USED.....1,2,3,4,5,6,10
PHASES USED.....1,2,3,4,5,6,4PED
OLA.....NOT USED
OLB.....NOT USED
OLC.....NOT USED
OLD.....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

BIU	CH1 L3 ø2	CH1 L1 ø1	CH1 L7 ø3	CH1 L5 ø2	CH1 L11 ø5	CH1 L9 ø4	CH1 L15 ø6	CH1 L13 ø6	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY
	CH2 L4 ø2	CH2 L2 NOT USED	CH2 L8 ø3	CH2 L6 NOT USED	CH2 L12 ø5	CH2 L10 ø4	CH2 L16 NOT USED	CH2 L14 ø6			

DETECTOR RACK #2

BIU	SLOT EMPTY	CH1 L17 ø4	SLOT EMPTY	SLOT EMPTY
		CH2 L18 NOT USED		

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

LOOP NO.	LOOP PANEL TERMINALS
1A	L1A,L1B
–	L2A,L2B
2A	L3A,L3B
2B	L4A,L4B
2C	L5A,L5B
–	L6A,L6B
3A	L7A,L7B
3B	L8A,L8B
4A	L9A,L9B
4B	L10A,L10B
5A	L11A,L11B
5B	L12A,L12B
6A	L13A,L13B
6B	L14A,L14B
6C	L15A,L15B
–	L16A,L16B
4C	L17A,L17B
–	L18A,L18B
–	L19A,L19B
–	L20A,L20B
–	L21A,L21B
–	L22A,L22B
–	L23A,L23B
–	L24A,L24B

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	ø 1	–	–
2	–	–	–
3	ø 2	–	–
4	ø 2	–	–
5	ø 2	–	–
6	–	–	–
7	ø 3	–	–
8	ø 3	DELAY	10
9	ø 4	DELAY	3
10	ø 4	–	–
11	ø 5	–	–
12	ø 5	–	–
13	ø 6	–	–
14	ø 6	–	–
15	ø 6	–	–
16	–	–	–
17	ø 4	–	–
18	–	–	–
19	–	–	–
20	–	–	–
21	–	–	–
22	–	–	–
23	–	–	–
24	–	–	–

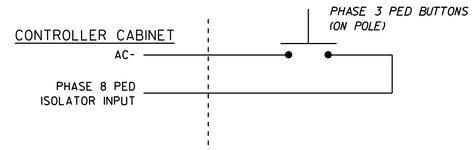
LOAD SWITCH ASSIGNMENT DETAIL

(program controller according to schedule in chart below)

LOAD SWITCH NUMBER	FUNCTION
1	ø1
2	ø2
3	ø3
4	ø4
5	ø5
6	ø6
7	ø7
8	ø8
9	ø2 PED
10	ø4 PED
11	ø6 PED
12	ø8 PED
13	OLA
14	OLB
15	OLC
16	OLD

PEDESTRIAN PUSH-BUTTON WIRING DETAIL

(wire push-buttons as shown below)



THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 02-0053T2
DESIGNED: JUNE 2014
SEALED: 9/2/2014
REVISED: N/A

TEMPORARY DESIGN 2 - TMP PHASE 2

ELECTRICAL AND PROGRAMMING DETAILS FOR:

Prepared For: Transportation Mobility and Safety Division, North Carolina Department of Transportation, Signals Management Section
750 N.Greenfield Pkwy,Garner,NC 27529

US 13-NC 11-43-903(MEMORIAL DRIVE)
AT
SR 1200 (STANTONSBURG ROAD)/
FARMVILLE BOULEVARD

DIVISION 2 | PITT COUNTY | GREENVILLE

PLAN DATE: JUNE 2014	REVIEWED BY: SL PHILLIPS
PREPARED BY: SP PENNINGTON	REVIEWED BY:

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 032607 ENGINEER STACIE L. PHILLIPS

DocuSigned by: Stacie Phillips 9/2/2014
DC87A59ED6D0437...
SIGNATURE DATE

SIG. INVENTORY NO. 02-0053T2

PLANS PREPARED IN THE OFFICE OF:
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8/29/2014 10:56:11 AM susan.pennington K:\RAL_Roadway\011036175 (U-3315)\Traffic Signals\54 - Signal Design\1-02-0053 Memorial\1.4 020053_140829w72.dgn