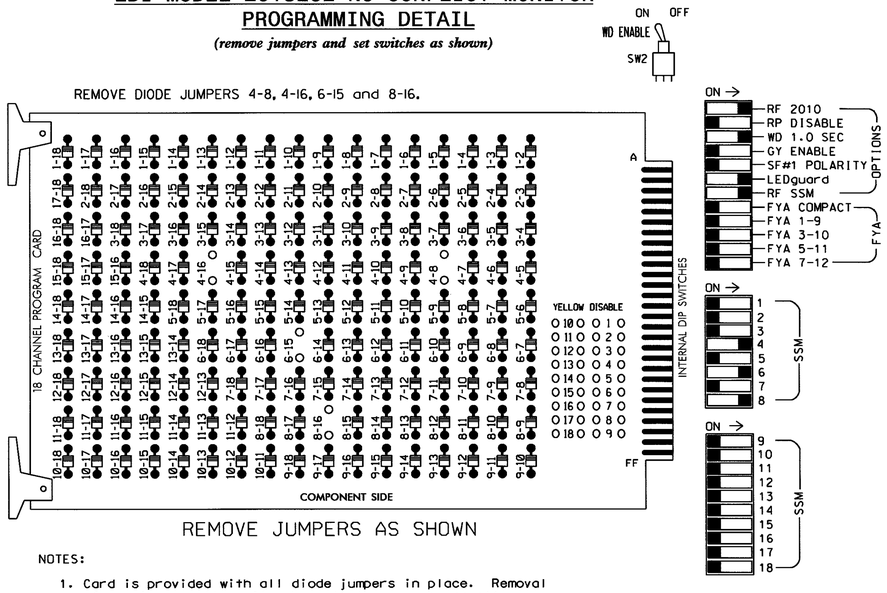
PROJECT REFERENCE NO.	SHEET NO.
SS-4905BP	Sig. 2

EDI MODEL 2018ECL-NC CONFLICT MONITOR PROGRAMMING DETAIL

(remove jumpers and set switches as shown)



■ = DENOTES POSITION OF SWITCH

NOTES:

1. Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
2. Ensure jumpers SEL2-SEL5 and SEL9 are present on the monitor board.
3. Ensure that Red Enable is active at all times during normal operation.
4. Connect serial cable from conflict monitor to comm. port 1 of 2070 controller. Ensure conflict monitor communicates with 2070.

NOTES

1. To prevent "flash-conflict" problems, insert red flash program blocks for all unused vehicle load switches in the output file. verify that signal heads flash in accordance with the signal plans.
2. Ensure that Red Enable is active at all times during normal operation. To prevent Red Failure on unused monitor channels, tie unused red monitor inputs 1,2,3, 5,7,9,10,11,12,13,14,15 and 16 to load switch AC+ per the cabinet manufacturer's instructions.
3. Program controller to Start Up in phases 2 and 6 green.
4. Set flash start time to 0 seconds within the controller programming. The conflict monitor will govern start-up flash time. Ensure STARTUP 'RED START' is set to 0.0 sec.
5. Set the Red Revert interval, on the controller unit, to 1 second.
6. Enable simultaneous gap-out feature for all phases.
7. Program all timing information into phase banks 1, 2, and 3 unless otherwise noted.
8. Set phase bank 3 maximum limit to 250 seconds for phases used.
9. Ensure start up flash phases are coordinated with flash program block assignments.
10. Program Startup Ped Calls for phases 6 and 8.
11. This cabinet and controller are part of the Durham Signal System.

SIGNAL HEAD HOOK-UP CHART

LOAD SWITCH NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	AUX S1	AUX S2	AUX S3	AUX S4	AUX S5	AUX S6
CMU CHANNEL NO.	1	2	13	3	4	14	5	6	15	7	8	16	9	10	17	11	12	18
PHASE	1	2	2 PED	3	4	4 PED	5	6	6 PED	7	8	8 PED	OLA	OLB	SPARE	OLC	OLD	SPARE
SIGNAL HEAD NO.	NU	NU	NU	NU	41,42	NU	NU	61,62	P61,P62, P63,P64	NU	81,82	P81, P82	NU	NU	NU	NU	NU	NU
RED					101			134			107							
YELLOW					102			135			108							
GREEN					103			136			109							
RED ARROW																		
YELLOW ARROW																		
FLASHING YELLOW ARROW																		
GREEN ARROW																		
✋									119			110						
🚶									121			112						

NU = Not Used

EQUIPMENT INFORMATION

CONTROLLER.....2070E
CABINET.....332 /W/ AUX
SOFTWARE.....McCAIN 2033
CABINET MOUNT.....BASE
OUTPUT FILE POSITIONS...18 (12-STD, 6-AUX)
LOAD SWITCHES USED.....S5,S8,S9,S11,S12
PHASES USED.....4,6,6 PED,8,8 PED
OVERLAPS.....NONE

EVA INPUT PROGRAMMING

1. Program EVA for input 51 as follows:
   Main Menu - 5) INPUTS - 3) PREEMPTS

PREEMPTION INPUTS			
RR1	51	SE1 0	
RR2	0	SE2 0	⟵ NOTE INPUT CHANGE
EVA	52	SE3 0	⟵ NOTE INPUT CHANGE
EVB	72	SE4 0	
EVC	73	SE5 0	
EVD	74	SE6 0	
GATE DOWN 0			

INPUT FILE POSITION LAYOUT

(front view)

		1	2	3	4	5	6	7	8	9	10	11	12	13	14
FILE "I"	U	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	Ø 4 4A	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	Ø6 PED DC ISOLATOR	FS DC ISOLATOR
	L						Ø 4 4B							Ø8 PED DC ISOLATOR	ST DC ISOLATOR
FILE "J"	U	SLOT EMPTY	Ø 6 6A,6B	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	Ø 8 8A	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	NOT USED
	L		NOT USED				NOT USED								EVA AC ISOLATOR

EX.: 1A, 2A, ETC. = LOOP NO.'S

FS = FLASH SENSE
ST = STOP TIME
EVA = OVERHEIGHT PREEMPT
(SEE EVA INPUT PROGRAMMING DETAIL THIS SHEET)

INPUT FILE CONNECTION & PROGRAMMING CHART

LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	DETECTOR NO.	PIN NO.	ATTRIBUTES	NEMA PHASE
4A	TB4-9,10	I6U	3	41	5 7	4
4B	TB4-11,12	I6L	7	45	5 7	4
6A,6B	TB3-5,6	J2U	2	40	5 7	6
8A	TB5-9,10	J6U	4	42	5 7	8
PED PUSH BUTTONS						
P61,P62	TB8-7,9	I13U	26	68	2	6 PED
P63,P64	TB8-7,9	I13U	26	68	2	6 PED
P81,P82	TB8-8,9	I13L	28	70	2	8 PED

NOTE: PROGRAM DETECTOR DELAY AND CARRYOVER TIMES AS SPECIFIED ON SIGNAL DESIGN PLANS.

NOTE: INSTALL DC ISOLATORS IN INPUT FILE SLOTS I12 AND I13.

DETECTOR ATTRIBUTES LEGEND:

1-FULL TIME DELAY
2-PED CALL
3-RESERVED
4-COUNTING
5-EXTENSION
6-TYPE 3
7-CALLING
8-ALTERNATE

INPUT FILE POSITION LEGEND: J2L
FILE J
SLOT 2
LOWER

EMERGENCY VEHICLE PREEMPTION PROGRAMMING FOR EVA

1. Program EVA preempt as follows:
   Main Menu - 2) PREEMPT - 4) EMERGENCY VEHICLE

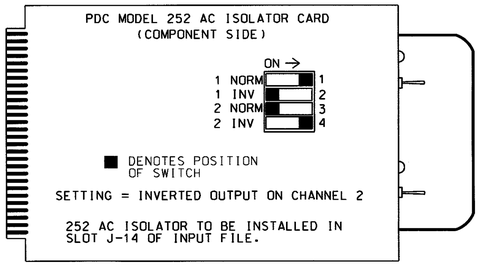
	DELAY	CLEAR	CLEARANCE PHASES
EVA	0	25	...4...8
EVB	0	0	.....
EVC	0	0	.....
EVD	0	0	.....

2. Program general preemption parameters as follows:
   Main Menu - 2) PREEMPT - 6) MISC PARAMETERS

MAX EV PREEMPT TIME	2
MIN EV PREEMPT REVERT TIME	0
MIN TIME BEFORE PE FORCEOFF	1
DISABLE LOW PRIORITY	.....
FLASH TO PREEMPT	.....

EVA AC ISOLATOR (MODEL 252) OUTPUT PROGRAMMING DETAIL

(set DIP switches as shown below)



NOTE: IF ANOTHER MANUFACTURER TYPE OF AC ISOLATOR IS USED, OUTPUT PROGRAMMING IS LIKELY NOT TO EQUATE TO THAT SHOWN ABOVE.

PEDESTRIAN LOADSWITCH ASSIGNMENTS

Program the pedestrian loadswitch output assignments as follows:
Main Menu - 6) OUTPUTS - 7) PEDS

PED 6P = 6
PED 8P = 8

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.

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 05-1236
DESIGNED: January 2014
SEALED: 3/7/14
REVISED: N/A

Electrical Detail - Sheet 1 of 2

ELECTRICAL AND PROGRAMMING DETAILS FOR:

SR 1327 (S. Gregson Street) at Peabody Street

Division 5 | Durham County | Durham

PLAN DATE: February 2014 | REVIEWED BY: T. Jogi
PREPARED BY: C. Strickland | REVIEWED BY:

REVISIONS	INIT.	DATE

Prepared in the Offices of: Transportation Mobility and Safety Division, Traffic Engineering Branch, Signal Management Section, Department of Transportation, State of North Carolina
750 N.Greenfield Pkwy, Garner, NC 27529

SEAL: NORTH CAROLINA PROFESSIONAL SEAL 022013 ENGINEER GEORGE C. BROWN

SIGNATURE | DATE 3/13/14

SIG. INVENTORY NO. 05-1236

10-MAR-2014 11:05
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