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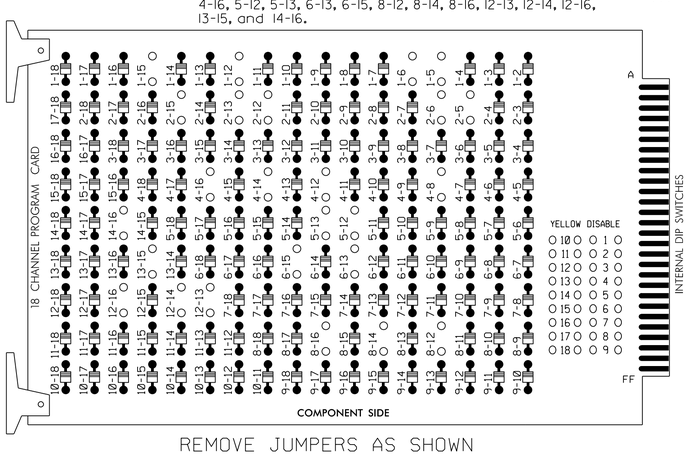
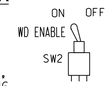
PROJECT REFERENCE NO.	SHEET NO.
U-3633	SIG-16

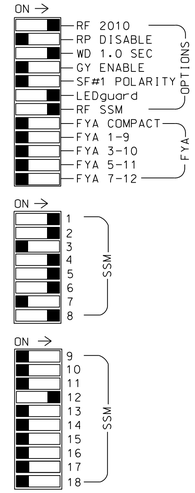
EDI MODEL 2018ECL-NC CONFLICT MONITOR PROGRAMMING DETAIL

(remove jumpers and set switches as shown)

REMOVE DIODE JUMPERS 1-5, 1-6, 1-12, 1-15, 2-5, 2-6, 2-12, 2-13, 2-15, 4-8, 4-12, 4-14, 4-16, 5-12, 5-13, 6-13, 6-15, 8-12, 8-14, 8-16, 12-13, 12-14, 12-16, 13-15, and 14-16.







■ = DENOTES POSITION OF SWITCH

REMOVE JUMPERS AS SHOWN

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. The installer shall verify that signal heads flash in accordance with the Signal Plans.
2. Program phases 4 and 8 for Dual Entry.
3. Enable Simultaneous Gap-Out for all phases.
4. Program phases 2 and 6 for Variable Initial and Gap Reduction.
5. Program phases 2 and 6 for Start Up In Green.
6. Program phases 2, 4, 6 and 8 for 'STARTUP PED CALL'.
7. Program phases 2 and 6 for Yellow Flash.
8. The cabinet and controller are part of the NC 273 (Highland Street) Closed Loop System.

EQUIPMENT INFORMATION

CONTROLLER.....2070
CABINET.....332 /W/ AUX
SOFTWARE.....ECONOLITE OASIS
CABINET MOUNT.....BASE
OUTPUT FILE POSITIONS...18 WITH AUX. OUTPUT FILE
LOAD SWITCHES USED.....S1,S2,S3,S5,S6,S7,S8,S9,S11,S12, AUX S5.
PHASES USED.....1,2,2PED,4,4PED,5,6,6PED,8,8PED
OVERLAP "A".....NOT USED
OVERLAP "B".....NOT USED
OVERLAP "C".....NOT USED
OVERLAP "D".....4+5

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.	11	82	21,22	P21, P22	NU	41,42	P41, P42	51,52	61,62	P61, P62	NU	81,82	P81, P82	NU	NU	NU	NU	★ 43,44	NU
RED			128			101			134			107						A101	
YELLOW			129			102			135			108							
GREEN			130			103			136			109							
RED ARROW	125						131												
YELLOW ARROW	126	126					132											A102	
FLASHING YELLOW ARROW																		A103	
GREEN ARROW	127	127					133												
✋			113			104			119			110							
🚶			115			106			121			112							

NU = Not Used

★ See pictorial of head wiring in detail below.

INPUT FILE POSITION LAYOUT

(front view)

		1	2	3	4	5	6	7	8	9	10	11	12	13	14
FILE "I"	U	Ø 1	Ø 1	Ø2/SYS	SLOT	SLOT	Ø 4	SLOT	SLOT	SLOT	SLOT	SLOT	Ø2 PED	Ø6 PED	FS
		1A	1B	2A/S1			4A						DC ISOLATOR	DC ISOLATOR	DC ISOLATOR
	L	NOT USED	NOT USED	Ø2/SYS	EMPTY	EMPTY	Ø 4	EMPTY	EMPTY	EMPTY	EMPTY	EMPTY	Ø4 PED	Ø8 PED	ST
				2B/S2			4B						DC ISOLATOR	DC ISOLATOR	DC ISOLATOR
FILE "J"	U	Ø 5	Ø 5	Ø6/SYS	SLOT	SLOT	Ø 8	SLOT	SLOT	SLOT	SLOT	SLOT	SLOT	SLOT	SLOT
		5A	5C	6A/S3			8A								
	L	Ø 5	Ø 5	Ø6/SYS	EMPTY	EMPTY	Ø 8	EMPTY	EMPTY	EMPTY	EMPTY	EMPTY	EMPTY	EMPTY	EMPTY
		5B	5D	6B/S4			8B								

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

FS = FLASH SENSE
ST = STOP TIME

INPUT FILE POSITION LEGEND: J2L
FILE J
SLOT 2
LOWER

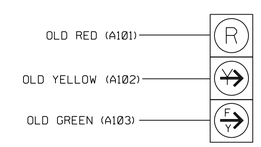
INPUT FILE CONNECTION & PROGRAMMING CHART

LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	INPUT ASSIGNMENT NO.	DETECTOR NO.	NEMA PHASE	CALL	EXTEND	FULL TIME DELAY	STRETCH TIME	DELAY TIME
1A	TB2-1,2	I1U	56	18	1	1	Y	Y			
1B	TB2-5,6	I2U	39	1	2	1	Y	Y			15
2A/S1	TB2-9,10	I3U	63	25	32	2/SYS	Y	Y			
2B/S2	TB2-11,12	I3L	76	38	42	2/SYS	Y	Y			
4A	TB4-9,10	I6U	41	3	4	4	Y	Y			
4B	TB4-11,12	I6L	45	7	14	4	Y	Y			
5A	TB3-1,2	J1U	55	17	5	5	Y	Y			
5B	TB3-3,4	J1L	55	17	5	5	Y	Y			
5C	TB3-5,6	J2U	40	2	6	5	Y	Y			15
5D	TB3-7,8	J2L	44	6	16	5	Y	Y			15
6A/S3	TB3-9,10	J3U	64	26	36	6/SYS	Y	Y			
6B/S4	TB3-11,12	J3L	77	39	46	6/SYS	Y	Y			
8A	TB5-9,10	J6U	42	4	8	8	Y	Y			3
8B	TB5-11,12	J6L	46	8	18	8	Y	Y			
PED PUSH BUTTONS											
P21,P22	TB8-4,6	I12U	67	29	PED 2	2 PED					
P41,P42	TB8-5,6	I12L	69	31	PED 4	4 PED					
P61,P62	TB8-7,9	I13U	68	30	PED 6	6 PED					
P81,P82	TB8-8,9	I13L	70	32	PED 8	8 PED					

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

SIGNAL WIRING DETAIL

(wire signal heads as shown)



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FLASHER CIRCUIT MODIFICATION DETAIL

IN ORDER TO INSURE THAT SIGNALS FLASH CONCURRENTLY ON THE SAME APPROACH, MAKE THE FOLLOWING FLASHER CIRCUIT CHANGES:

1. ON REAR OF PDA - REMOVE WIRE FROM TERM. T2-4 AND TERMINATE ON T2-2.
2. ON REAR OF PDA - REMOVE WIRE FROM TERM. T2-5 AND TERMINATE ON T2-3.
3. REMOVE FLASHER UNIT 2.

THE CHANGES LISTED ABOVE TIES ALL PHASES AND OVERLAPS TO FLASHER UNIT 1.

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.

OVERLAP PROGRAMMING DETAIL

(program controller as shown below)

FROM MAIN MENU PRESS '8' (OVERLAPS), THEN '1' (VEHICLE OVERLAP SETTINGS).

PRESS '+' 3 TIMES

```
PAGE 1: VEHICLE OVERLAP 'D' SETTINGS
PHASE:          :123456789101112131415 16
VEH OVL PARENTS::    XX
VEH OVL NOT VEH::
VEH OVL NOT PED::
VEH OVL GRN EXT::
STARTUP COLOR: _ RED  _ YELLOW  _ GREEN
FLASH COLORS:  _ RED  _ YELLOW  X GREEN
SELECT VEHICLE OVERLAP OPTIONS:   (Y/N)
FLASH YELLOW IN CONTROLLER FLASH?...N
GREEN EXTENSION (0-255 SEC).........0
YELLOW CLEAR (0=PARENT.3-25.5 SEC)..0.0
RED CLEAR (0=PARENT.0.1-25.5 SEC)...0.0
OUTPUT AS PHASE # (0=NONE. 1-16)....0
```

← NOTICE GREEN FLASH

OVERLAP PROGRAMMING COMPLETE

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 12-0538
DESIGNED: July 2016
SEALED: 9/26/2016
REVISED:

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www.stantec.com
License No. F-0672

Signal Upgrade - Final Design
ELECTRICAL DETAIL SHEET 1 OF 1

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

ELECTRICAL AND PROGRAMMING DETAILS FOR:

NC 273 (South Main Street) at SR 2044 (Tuckaseege Road)/ Rankin Avenue

Division 12 Gaston County Mount Holly

PLAN DATE: JULY 2016	REVIEWED BY: D. HARRIS
PREPARED BY: J. HAMBRIGHT	REVIEWED BY: B. WATSON

REVISIONS	INIT.	DATE

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

SEAL: NORTH CAROLINA PROFESSIONAL SEAL 29449 ENGINEER BETSY L. WATSON

DocuSigned by: Betsy L. Watson 9/26/2016
SIGNATURE DATE

SIG. INVENTORY NO. 12-0538

9/22/2016
11:47:07 AM
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jhambright