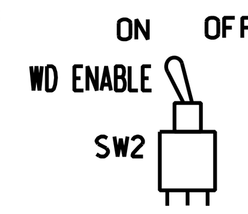
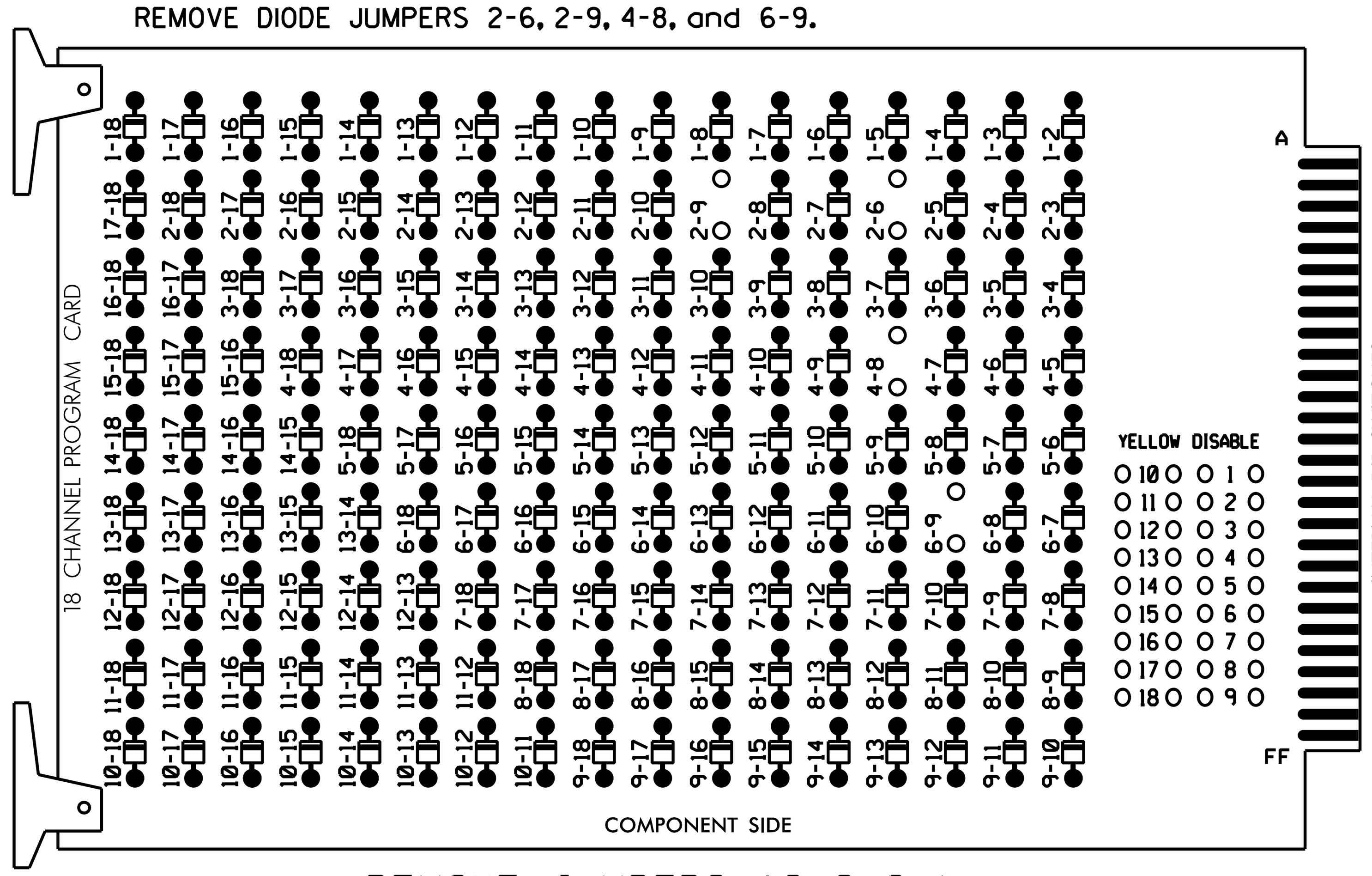
PROJECT REFERENCE NO.	SHEET NO.
R-1015	Sig. 9.1

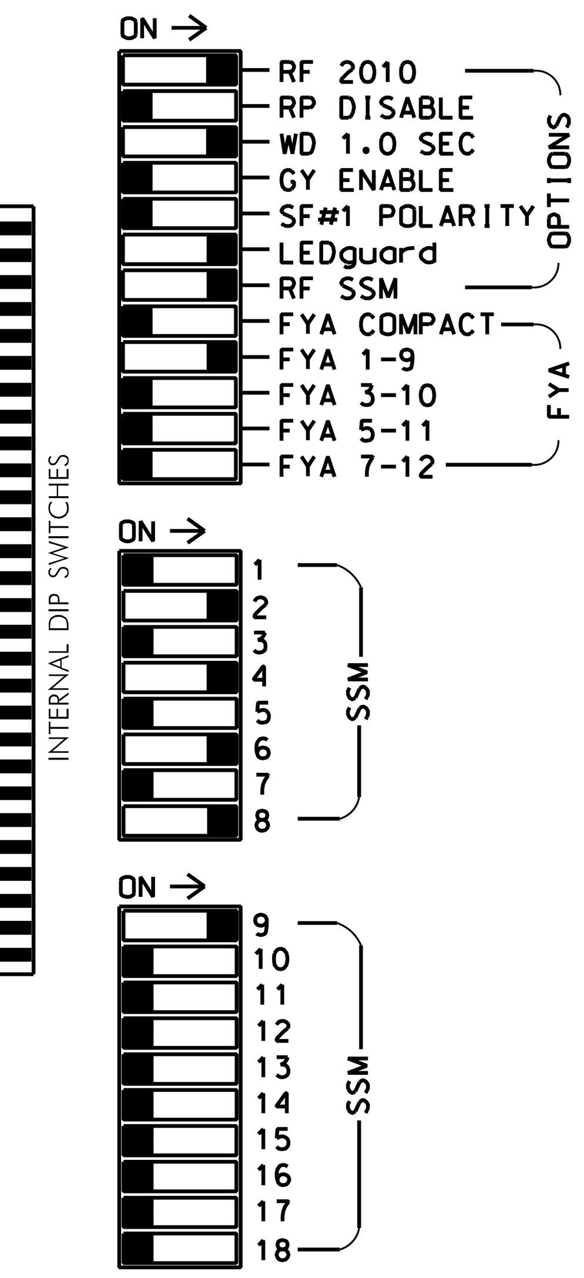
EDI MODEL 2018ECL-NC CONFLICT MONITOR PROGRAMMING DETAIL

(remove jumpers and set switches as shown)



REMOVE DIODE JUMPERS 2-6, 2-9, 4-8, and 6-9.





■ = 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. Enable Simultaneous Gap-Out for all Phases.
3. Program phases 4 and 8 for Dual Entry.
4. Program phases 2 and 6 for Variable Initial and Gap Reduction.
5. Program phases 2 and 6 for Startup In Green.
6. Program phases 2 and 6 for Yellow Flash, and overlap 1 as Wag Overlaps.
7. The cabinet and controller are part of the Havelock US 70 Business Closed Loop 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	21,22, 23,24	NU	NU	41,42	NU	NU	62,63, 65,66	NU	NU	81,82	NU	61,64 ★	NU	NU	NU	NU	NU
RED		128			101			134			107							
YELLOW		129			102			135			108							
GREEN		130			103			136			109							
RED ARROW													A121					
YELLOW ARROW													A122					
FLASHING YELLOW ARROW													A123					
GREEN ARROW																		

NU = Not Used

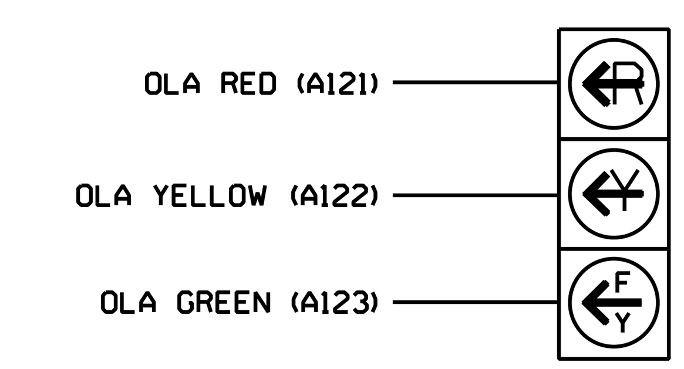
★ See pictorial of head wiring in detail this sheet.

EQUIPMENT INFORMATION

CONTROLLER..............2070E
CABINET.................332 W/AUX
SOFTWARE................ECONOLITE OASIS
CABINET MOUNT...........BASE
OUTPUT FILE POSITIONS...18 WITH AUX. OUTPUT FILE
LOAD SWITCHES USED......S2,S5,S8,S11,AUX S1
PHASES USED.............2,4,6,8
OVERLAP "A".............2
OVERLAP "B".............NOT USED
OVERLAP "C".............NOT USED
OVERLAP "D".............NOT USED

FYA SIGNAL WIRING DETAIL

(wire signal heads as shown)



61,64

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	Ø 2 2A	Ø 2 2C	SLOT EMPTY	SLOT EMPTY	Ø 4 4A	SLOT EMPTY	SLOT EMPTY	SYS S28	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	FS DC ISOLATOR
	L		Ø 2 2B	Ø 2 2D			Ø 4 4B			SYS S29					ST DC ISOLATOR
FILE "J"	U	Ø 6 6A	Ø 6 6B	Ø 6 6D	Ø 6 6F	SLOT EMPTY	Ø 8 8A	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY
	L	NOT USED	Ø 6 6C	Ø 6 6E	NOT USED		Ø 8 8B								

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

FS = FLASH SENSE
ST = STOP TIME

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
2A	TB2-5,6	I2U	39	1	2	2	Y	Y			
2B	TB2-7,8	I2L	43	5	12	2	Y	Y			
2C	TB2-9,10	I3U	63	25	32	2	Y	Y			
2D	TB2-11,12	I3L	76	38	42	2	Y	Y			
4A	TB4-9,10	I6U	41	3	4	4	Y	Y			
4B	TB4-11,12	I6L	45	7	14	4	Y	Y			
*S28	TB6-9,10	I9U	60	22	11	SYS					
*S29	TB6-11,12	I9L	62	24	13	SYS					
6A	TB3-1,2	J1U	55	17	5	6	Y	Y			
6B	TB3-5,6	J2U	40	2	6	6	Y	Y			
6C	TB3-7,8	J2L	44	6	16	6	Y	Y			
6D	TB3-9,10	J3U	64	26	36	6	Y	Y			
6E	TB3-11,12	J3L	77	39	46	6	Y	Y			
6F	TB5-1,2	J4U	48	10	26	6	Y	Y			
8A	TB5-9,10	J6U	42	4	8	8	Y	Y			
8B	TB5-11,12	J6L	46	8	18	8	Y	Y			15

* System detector only. Remove the vehicle phase assigned to this detector in the default programming.

INPUT FILE POSITION LEGEND: J2L

FILE J
SLOT 2
LOWER

OVERLAP PROGRAMMING DETAIL FOR DEFAULT PHASING

(program controller as shown below)

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

```
 PAGE 1: VEHICLE OVERLAP 'A' SETTINGS
 PHASE:            ¦12345678910111213141516
VEH OVL PARENTS:¦ X
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?...Y
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: 02-0189
DESIGNED: March 2018
SEALED: 12-7-18
REVISED: N/A

HNTB

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Electrical Detail
Signal Upgrade

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

ELECTRICAL AND PROGRAMMING DETAILS FOR:

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

US 70 Business (E Main Street) at SR 1737 (Roosevelt Boulevard)/Woodhaven Drive

Division 02 Craven Co. Havelock

PLAN DATE: March 2018	REVIEWED BY: A.D. Klinksiek
PREPARED BY: A.H. Thornburg	REVIEWED BY: N.R. Simmons

REVISIONS	INIT.	DATE

SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 031464 NATASHA R. SIMMONS

DocuSigned by: Natasha R. Simmons 12/7/2018
SIGNATURE DATE

SIG. INVENTORY NO. 02-0189