EDI MODEL 2018ECL-NC CONFLICT MONITOR
PROGRAMMING DETAIL
(remove jumpers and set switches as shown)

ON   OFF
WD ENABLE
SW2

REMOVE DIODE JUMPERS 1-2,1-6,2-6 and 6-9.

18 CHANNEL PROGRAM CARD

YELLOW DISABLE
O18O O1O
O11O O2O
O12O O3O
O13O O4O
O14O O5O
O15O O6O
O16O O7O
O17O O8O
O18O O9O

COMPONENT SIDE

RF 2010
RP DISABLE
WD 1.0 SEC
GY ENABLE
SF#1 POLARITY
LEDguard
RF SSM — OPTIONS
FYA COMPACT
FYA 1-9
FYA 3-10
FYA 5-11 — FYA
FYA 7-12

ON →
1
2
3
4
5
6 — SSM
7
8

ON →
9
10
11
12
13
14 — SSM
15
16
17
18

A
INTERNAL DIP SWITCHES
FF

■ = 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.
5. Special cabinet wiring is required to utilize FYA COMPACT mode. See Ped Yellow Conflict Monitor Wiring Detail on this sheet.

INPUT FILE POSITION LAYOUT
(front view)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
FILE "I" U	Ø1 1A	Ø2/SYS 2A/S01	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	Ø6/SYS 6A/S02 DC ISOLATOR	SLOT EMPTY	Ø8 8A	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	FS DC ISOLATOR
L	NOT USED	NOT USED	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	NOT USED	SLOT EMPTY	NOT USED	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	ST DC ISOLATOR

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

FS = FLASH SENSE
ST = STOP TIME

Note: Install a model 242 DC isolator in slot I6 for use with microwave detector. See the Microwave Detector Wiring Details on sheet 3.

IMPORTANT: For proper operation of the microwave detector, remove surge protection from TB21-11 and TB21-12, and from TB23-11 and TB23-12.

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
1A¹	TB21-1,2	I1U	56	18	1	1	Y	Y			15
-	-	-	59	21	15	6	Y	Y	Y		3
2A/S01	TB21-3,4	I2U	39	1	2	2/SYS	Y	Y			
*6A/S02	TB21-11,12	I6U	40	2	6	6/SYS	Y	Y			
8A	TB22-1,2	I8U	42	4	8	8	Y	Y			3

¹ Add jumper from I1-F to I1-SP. on rear of input file.

* Microwave pulse detector. See wiring and programming details on sheets 2 and 3.

INPUT FILE POSITION LEGEND: I2L

FILE I
SLOT 2
LOWER

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 2 and 6 for Variable Initial and Gap Reduction.

4. Program phases 2 and 6 for Startup In Green.

5. Program phases 2 and 6 for Yellow Flash, and overlap 1 as Wag Overlaps.

6. The cabinet and controller are part of the NC 59 Closed Loop System.

EQUIPMENT INFORMATION

CONTROLLER..............2070
CABINET.................336
SOFTWARE................ECONOLITE OASIS
CABINET MOUNT..........POLE
OUTPUT FILE POSITIONS...12
LOAD SWITCHES USED......S1,S2,S3,S8,S11
PHASES USED.............1,2,6,8
OVERLAP "A"............1+2
OVERLAP "B"............NOT USED
OVERLAP "C"............NOT USED
OVERLAP "D"............NOT USED

BACKUP PROTECTION NOTE
(program controller as shown below)

From Main Menu press '2' (Phase Control), then '1' (Phase Control Functions). Program phase 6 for 'Backup Protect'. Make sure the Red Revert times shown on the Signal Design Plans are programmed in the 'Phase Timing' menu.

PED YELLOW CONFLICT MONITOR WIRING DETAIL
(make cabinet wiring changes as shown below)

In order to use FYA COMPACT mode with the 2018ECL-NC Monitor, the cabinet must be wired such that the (unused) Ped Yellow load switch outputs are wired to the conflict monitor as follows: From 2 PY (field term. 114) to chan. 9 green (monitor pin 13).

Follow the instructions below to make the appropriate connections:
STEP 1: Fold down rear panel of output file.
STEP 2: Find unused wiring harness from conflict monitor card edge connector (which should be tied and bundled together).
STEP 3: Find the conductors that correspond to the following conflict monitor card edge pins and solder wire to the appropriate terminal on the rear of the output file as shown below:

CMU-13 —————————— 2PY (term. 114)

NOTE: Some cabinet manufacturers use keyed connectors to accomplish this wiring configuration. If connectors are used, fold down the rear panel of the output file and find the set of 3 keyed connectors and connect them as shown below:

1-2PY ------- 1-CMU-13
2-4PY ------- 2-CMU-16
3-6PY ------- 3-CMU-R
4-8PY ------- 4-CMU-U

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 06-0946T1
DESIGNED: September 2017
SEALED: 11-28-17
REVISED: N/A

SIGNAL HEAD HOOK-UP CHART

LOAD SWITCH NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12
CMU CHANNEL NO.	1	2	9	13	3	4	14	5	6	15	7	8	16
PHASE	OLA	2	1 GRN	2 PED	3	4	4 PED	5	6	6 PED	7	8	8 PED
SIGNAL HEAD NO.	11 ★	21,22	11 ★	NU	NU	NU	NU	NU	61,62	NU	NU	81,82	NU
RED		128							134			107	
YELLOW		129							135			108	
GREEN		130							136			109	
RED ARROW	125												
YELLOW ARROW	126												
FLASHING YELLOW ARROW	127												
GREEN ARROW			114										
✋			*										

NU = Not Used

* Denotes install load resistor. See load resistor installation detail this sheet.
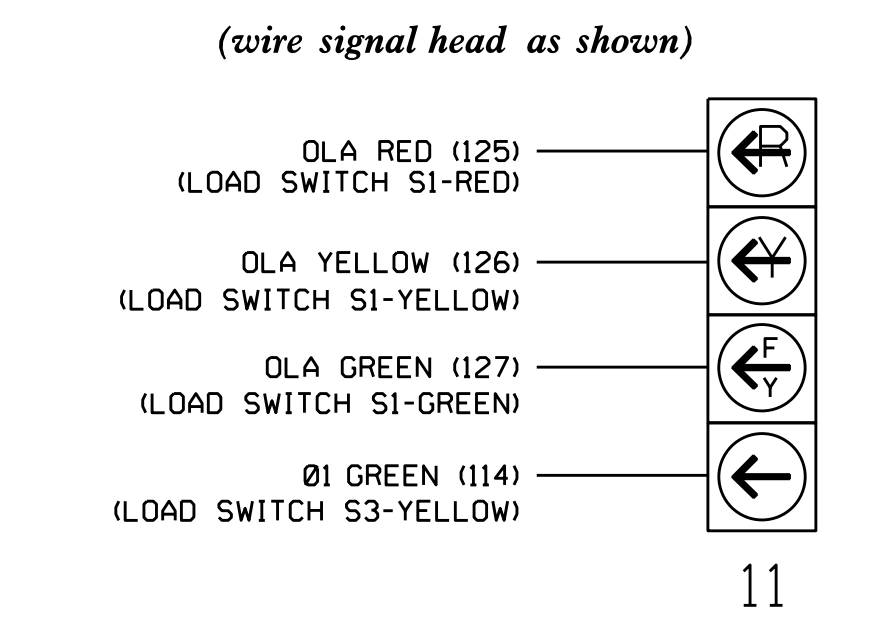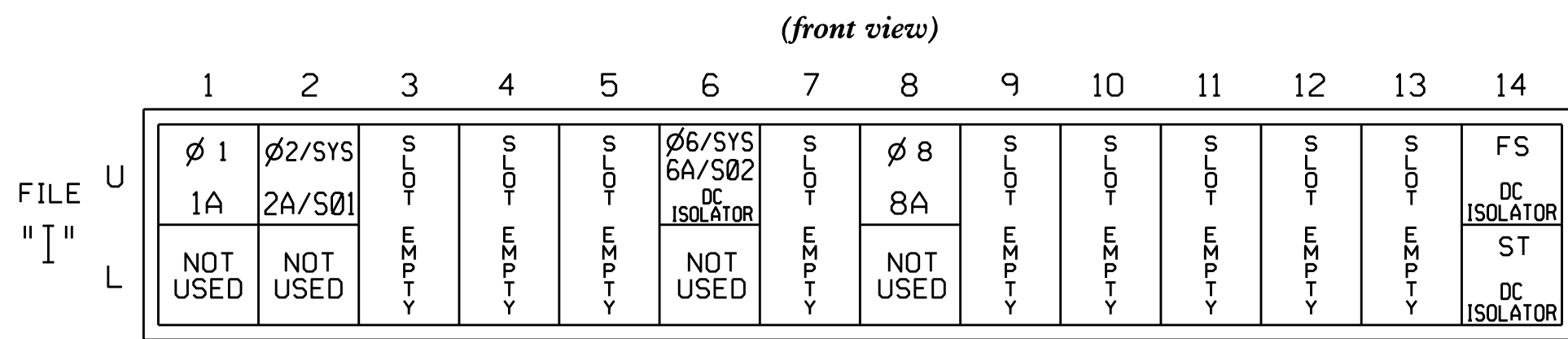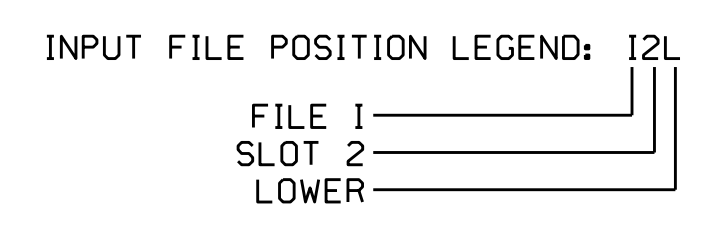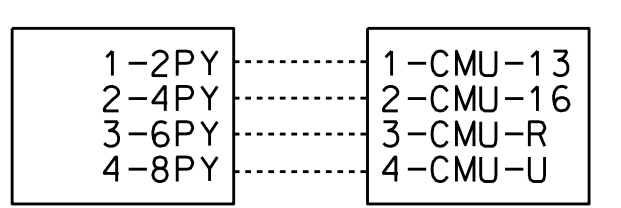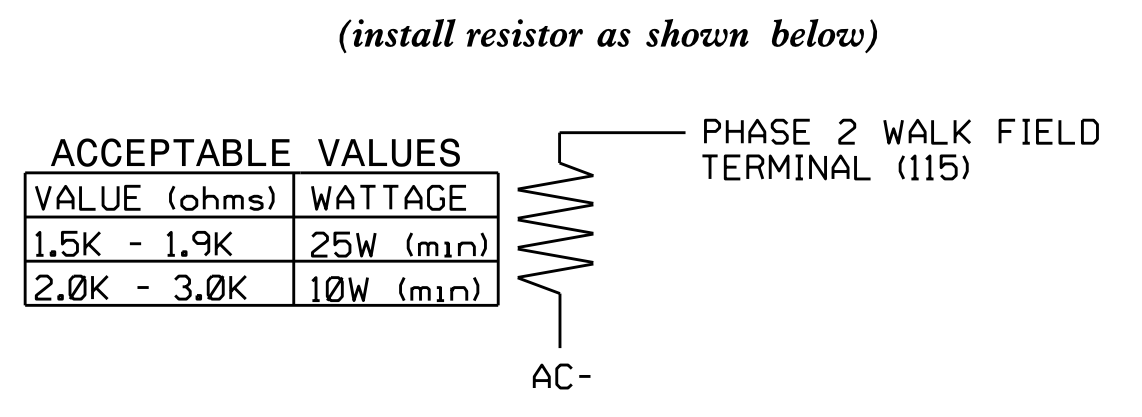
★ See pictorial of head wiring in detail this sheet.

FYA SIGNAL WIRING DETAIL
(wire signal head as shown)

OLA RED (125)
(LOAD SWITCH S1-RED)

OLA YELLOW (126)
(LOAD SWITCH S1-YELLOW)

OLA GREEN (127)
(LOAD SWITCH S1-GREEN)

Ø1 GREEN (114)
(LOAD SWITCH S3-YELLOW)

11

NOTE

The sequence display for signal head 11 requires special logic and output remapping. See sheets 2 and 3 for programming instructions.

LOAD RESISTOR INSTALLATION DETAIL
(install resistor as shown below)

ACCEPTABLE VALUES
VALUE (ohms)	WATTAGE
1.5K - 1.9K	25W (min)
2.0K - 3.0K	10W (min)

PHASE 2 WALK FIELD TERMINAL (115)

AC-

Electrical Detail - Sheet 1 of 3 - Temp. 1 (Phase I)

ELECTRICAL AND PROGRAMMING DETAILS FOR:

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

NC 59 (South Main Street)
at
I-95 Bus./US 301 SB Ramp/
SR 2285 (Shipman Road)

Division 6	Cumberland County	Hope Mills
PLAN DATE: November 2017	REVIEWED BY:	
PREPARED BY: James Peterson	REVIEWED BY:	

REVISIONS	INIT.	DATE

SEAL

NORTH CAROLINA
PROFESSIONAL
SEAL
036880
KEITH M. MIMS
ENGINEER

DocuSigned by:
Keith M. Mims   12/1/2017
2F8078E9ECD3445
DATE

SIG. INVENTORY NO. 06-0946T1