18 CHANNEL IP CONFLICT MONITOR
PROGRAMMING DETAIL
(remove jumpers and set switches as shown)

ON   OFF
WD ENABLE
SW2

REMOVE DIODE JUMPERS 1-5, 1-6, 1-9, 1-11, 1-15, 2-5, 2-6, 2-9, 2-11, 2-13, 2-15, 3-7, 3-8, 3-10, 3-12, 3-16, 4-7, 4-8, 4-10, 4-12, 4-14, 4-16, 5-9, 5-11, 5-13, 6-9, 6-11, 6-13, 6-15, 7-10, 7-12, 7-14, 8-10, 8-12, 8-14, 8-16, 9-11, 9-13, 9-15, 10-12, 10-14, 10-16, 11-13, 11-15, 12-14, 12-16, 13-15, AND 14-16.

18 CHANNEL PROGRAM CARD

COMPONENT SIDE

A
FF

OPTIONS:
- RF 2010
- RP DISABLE
- WD 1.0 SEC
- GY ENABLE
- SF#1 POLARITY
- LEDguard
- RF SSM

FYA:
- FYA COMPACT
- FYA 1-9
- FYA 3-10
- FYA 5-11
- FYA 7-12

INTERNAL DIP SWITCHES

YELLOW DISABLE

O 10 O	O 1 O
O 11 O	O 2 O
O 12 O	O 3 O
O 13 O	O 4 O
O 14 O	O 5 O
O 15 O	O 6 O
O 16 O	O 7 O
O 17 O	O 8 O
O 18 O	O 9 O

ON →
SSM: 1 2 3 4 5 6 7 8

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

■ = DENOTES POSITION OF SWITCH
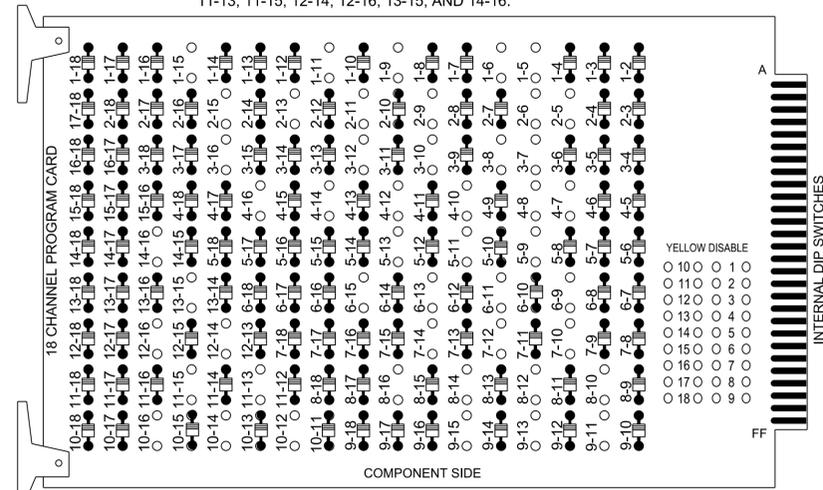
REMOVE JUMPERS AS SHOWN

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 the Red Enable is active at all times during normal operation.
4. Integrate monitor with Ethernet network in cabinet.

NOTES

1. To prevent "flash-conflict" problems, insert red flash program blocks for all vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the signal plan.

2. Program phases 4 and 8 for Dual Entry.

3. Program controller to start up in phase 2 Green No Walk and 6 Green No Walk.

4. If this signal will be managed by an ATMS software, enable controller and detector logging for all detectors used at this location.

5. The cabinet and controller are part of the Goldsboro Signal System.

EQUIPMENT INFORMATION

Controller...2070LX
Cabinet..332 w/ Aux
Software...Q-Free MAXTIME
Cabinet Mount.....................................Base
Output File Positions...........................18 With Aux. Output File
Load Switches Used...........................S1, S2, S3, S4, S5, S6, S7, S8, S9, S10, S11, S12, AUX S1, AUX S2, AUX S4, AUX S5
Phases Used.......................................1, 2, 2 PED, 3, 4, 4 PED, 5, 6, 6 PED, 7, 8, 8 PED
Overlap "1"...*
Overlap "2"...*
Overlap "3"...*
Overlap "4"...*

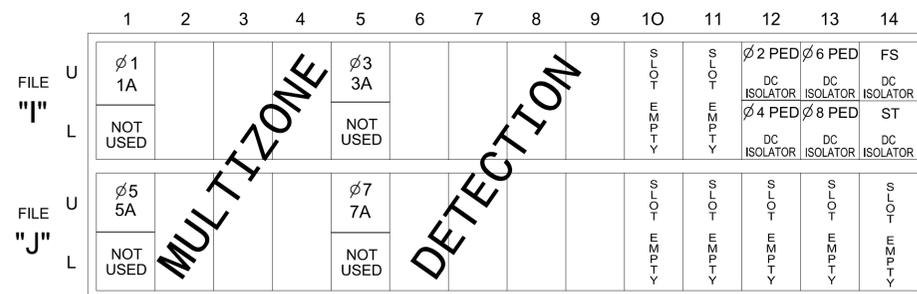*See overlap programming detail on sheet 2.

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	OL1	OL2	SPARE	OL3	OL4	SPARE
SIGNAL HEAD NO.	11★	21,22	P21, P22	31★	41,42 43	P41, P42	51★	61,62	P61, P62	71★	81,82 83	P81, P82	11★	31★	NU	51★	71★	NU
RED		128			101			134			107							
YELLOW	★	129		★	102		★	135		★	108							
GREEN		130			103			136			109							
RED ARROW													A121	A124		A114	A101	
YELLOW ARROW													A122	A125		A115	A102	
FLASHING YELLOW ARROW													A123	A126		A116	A103	
GREEN ARROW	127			118			133			124								
(R arrow)			113		104			119		110								
(walk)			115		106			121		112								

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 heads as shown)

OL1 RED (A121)
OL1 YELLOW (A122)
OL1 GREEN (A123)
01 GREEN (127)
11

OL3 RED (A114)
OL3 YELLOW (A115)
OL3 GREEN (A116)
05 GREEN (133)
51

OL2 RED (A124)
OL2 YELLOW (A125)
OL2 GREEN (A126)
03 GREEN (118)
31

OL4 RED (A101)
OL4 YELLOW (A102)
OL4 GREEN (A103)
07 GREEN (124)
71

INPUT FILE POSITION LAYOUT
(front view)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
FILE "I" U	∅1 1A		MULTIZONE		∅3 3A		DETECTION			SLOT EMPTY	SLOT EMPTY	∅2 PED DC ISOLATOR	∅6 PED DC ISOLATOR	FS DC ISOLATOR
L	NOT USED				NOT USED					SLOT EMPTY	SLOT EMPTY	∅4 PED DC ISOLATOR	∅8 PED DC ISOLATOR	ST DC ISOLATOR
FILE "J" U	∅5 5A				∅7 7A					SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY
L	NOT USED				NOT USED					SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY

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

FS = FLASH SENSE
ST = STOP TIME

SPECIAL DETECTOR NOTE

Install a multizone microwave detection system for vehicle detection. Perform installation according to manufacturer's directions and NCDOT engineer approved mounting locations to accomplish the detection schemes shown on the Signal Design Plans.

For detection zones 1A, 3A, 5A, and 7A, detector card placement is typical for a NCDOT installation. Inputs asssociated with these slots are compatible with time of day instructions located on Sheet 2 of this electrical detail.

INPUT FILE CONNECTION & PROGRAMMING CHART

LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	INPUT POINT	DETECTOR NO.	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL	DELAY DURING GREEN
1A	TB2-1,2	I1U	56	18	1 ★	1	15		X		X	
				-	29 ★	6			X		X	
3A	TB4-5,6	I5U	58	20	7 ★	3	15		X		X	
					30 ★	8			X		X	
5A	TB3-1,2	J1U	55	17	15 ★	5	15		X		X	
				-	31 ★	2			X		X	
7A	TB5-5,6	J5U	57	19	21 ★	7	15		X		X	
					32 ★	4			X		X	
PED PUSH BUTTONS												
P21,P22	TB8-4,6	I12U	67	33	2	PED 2						
P41,P42	TB8-5,6	I12L	69	35	4	PED 4						
P61,P62	TB8-7,9	I13U	68	34	6	PED 6						
P81,P82	TB8-8,9	I13L	70	36	8	PED 8						

NOTE: INSTALL DC ISOLATORS IN INPUT FILE SLOTS I12 AND I13.
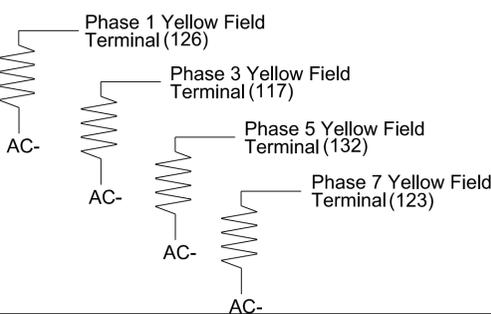
★ For the detectors to work as shown on the signal design plan, see the Detector Programming Detail for Alternate Phasing on Sheet 2.

INPUT FILE POSITION LEGEND: J2L
FILE J
SLOT 2
LOWER

LOAD RESISTOR INSTALLATION DETAIL
(install resistors as shown)

ACCEPTABLE VALUES	
Value (ohms)	Wattage
1.5K - 1.9K	25W (min)
2.0K - 3.0K	10W (min)

Phase 1 Yellow Field Terminal (126) — AC-
Phase 3 Yellow Field Terminal (117) — AC-
Phase 5 Yellow Field Terminal (132) — AC-
Phase 7 Yellow Field Terminal (123) — AC-

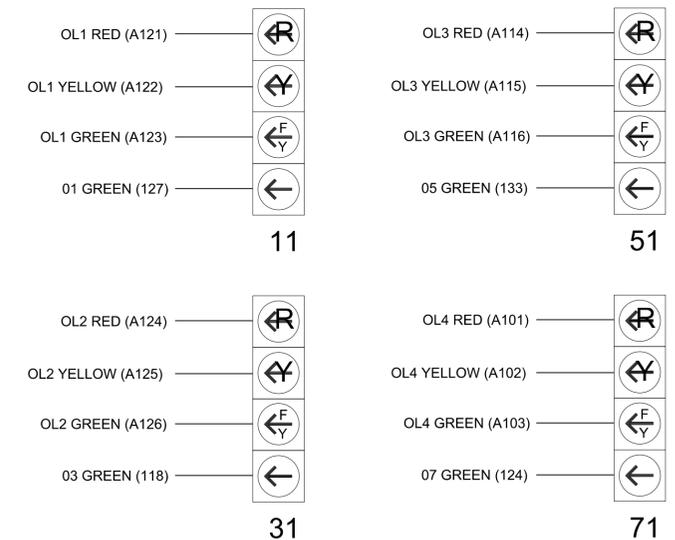## COUNTDOWN PEDESTRIAN SIGNAL OPERATION

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: 04-1097
DESIGNED: October 2025
SEALED: 10-05-2025
REVISED: N/A

Electrical Detail - Sheet 1 of 3

SIG. INVENTORY NO. 04-1097