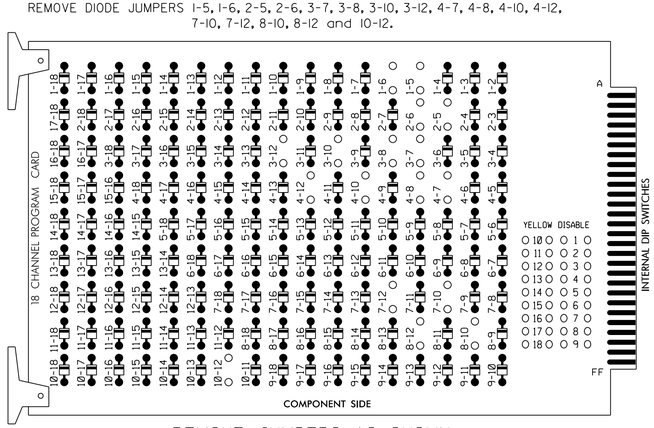
PROJECT REFERENCE NO.	SHEET NO.
U-4015A	Sig. 3.1

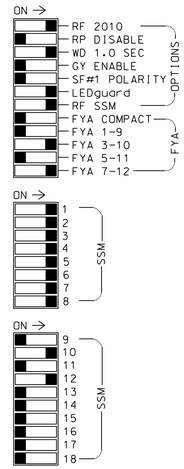
18 CHANNEL IP CONFLICT MONITOR PROGRAMMING DETAIL

(remove jumpers and set switches as shown)

REMOVE DIODE JUMPERS 1-5, 1-6, 2-5, 2-6, 3-7, 3-8, 3-10, 3-12, 4-7, 4-8, 4-10, 4-12, 7-10, 7-12, 8-10, 8-12 and 10-12.



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. Integrate monitor with Ethernet network in cabinet.

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. Program controller to start up in phase 2 Green and 6 Green.
4. The cabinet and controller are part of the High Point Signal System.

EQUIPMENT INFORMATION

CONTROLLER.....2070LX
CABINET.....332 W/ AUX
SOFTWARE.....ECONOLITE ASC/3-2070
CABINET MOUNT.....BASE
OUTPUT FILE POSITIONS...18 WITH AUX. OUTPUT FILE
LOAD SWITCHES USED.....S1,S2,S4,S5,S7,S8,S10,S11, AUX S2,AUX S5
PHASES USED.....1,2,3,4,5,6,7,8
OVERLAP "A".....NOT USED
OVERLAP "B".....*
OVERLAP "C".....NOT USED
OVERLAP "D".....*

* 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	OLA	OLB	SPARE	OLC	OLD	SPARE
SIGNAL HEAD NO.	11	21,22, 23,24	NU	31★	24	41,42, 43	NU	51	61,62, 63	NU	71★	63	81,82, 83	NU	NU	31★	NU	NU	71★	NU
RED		128			*	101			134			*	107							
YELLOW		129				102			135				108							
GREEN		130				103			136				109							
RED ARROW	125							131								A124			A101	
YELLOW ARROW	126				117			132				123				A125			A102	
FLASHING YELLOW ARROW																A126			A103	
GREEN ARROW	127			118	118			133			124	124								

NU = Not Used
* Denotes install load resistor. See load resistor installation detail this sheet.
★ 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 1A	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	Ø 3 3A	Ø 4 4A	SLOT EMPTY	WIRED INPUT ⊗	SYS. DET. S1	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	FS DC ISOLATOR
	L	NOT USED				NOT USED	NOT USED			SYS. DET. S2					ST DC ISOLATOR
FILE "J"	U	SLOT EMPTY	Ø 6 6A	SLOT EMPTY	SLOT EMPTY	Ø 7 7A	SLOT EMPTY	SLOT EMPTY	WIRED INPUT ⊗	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY
	L		Ø 6 6B			NOT USED									

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

FS = FLASH SENSE
ST = STOP TIME

⊗ Wired Input - Do not populate slot with detector card

INPUT FILE CONNECTION & PROGRAMMING CHART

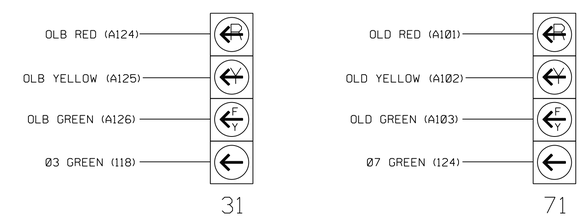
LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	DETECTOR NO.	NEMA PHASE	CALL	EXTEND TIME	DELAY TIME	ADDED INITIAL	DETECTOR TYPE
1A	TB2-1,2	I1U	56	1	1	YES				N
3A [1]	TB4-5,6	I5U	58	3★	3	YES		15		N
	-	J8U	50	28★	8	YES				N
4A	TB4-9,10	I6U	41	4	4	YES				N
6A	TB3-5,6	J2U	40	6	6	YES			X	N
6B	TB3-7,8	J2L	44	16	6	YES			X	N
7A [2]	TB5-5,6	J5U	57	7★	7	YES		15		N
	-	I8U	49	24★	4	YES		3		N
* S1	TB6-9,10	I9U	60	11	SYS	NO				N
* S2	TB6-11,12	I9L	62	13	SYS	NO				N

* System detector only. Remove any assigned vehicle phase.
[1] Add jumper from I5-W to J8-W, on rear of input file.
[2] Add jumper from J5-W to I8-W, on rear of input file.
★ For the detectors to work as shown on the signal design plan, see the Vehicle Detector Setup Programming Detail for Alternate Phasing on sheet 2.

INPUT FILE POSITION LEGEND: J2L
FILE J
SLOT 2
LOWER

FYA SIGNAL WIRING DETAIL

(wire signal head as shown)

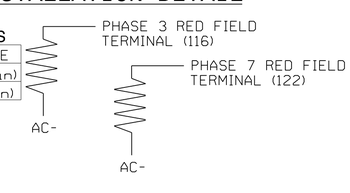


THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 07-1438T2
DESIGNED: August 2024
SEALED: August 22, 2024
REVISED:

LOAD RESISTOR INSTALLATION DETAIL

ACCEPTABLE VALUES

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



SPECIAL DETECTOR NOTE

Install a video detection system for vehicle detection for zones 2A, 2B, 3A, 5A, and 8A. 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 Zone 3A, the equipment placement and slots reserved for wired inputs are typical for a NCDOT installation.

RK&K
P: (919) 878-9560
8601 Six Forks Road Suite 700 | Raleigh, North Carolina 27615-2965
NC License No. F-0112
Engineers | Construction Managers | Planners | Scientists
www.rkk.com
Responsive People | Creative Solutions

Signal Upgrade - Temporary Design 2
(TMP Phase III) - Electrical Detail - Sheet 1 of 3

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

ELECTRICAL AND PROGRAMMING DETAILS FOR:

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

NC 68 (Eastchester Dr.)
at
SR 1556 (Gallimore Dairy Rd.)

Division 7 | Guilford County | High Point
PLAN DATE: August 2024 | REVIEWED BY: DT Sears
PREPARED BY: WP Erickson-Jones | REVIEWED BY:

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 056142 ENGINEER PORTER JONES

DocuSigned by: Porter Jones 8/22/2024
DOEF13F3A0E94DE...
SIGNATURE | DATE

SIG. INVENTORY NO. 07-1438T2

8/22/2024
R:\Traffic\Signals\Designs\U4015a_SIG_07-1438T2.dgn
wpjones