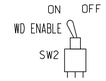
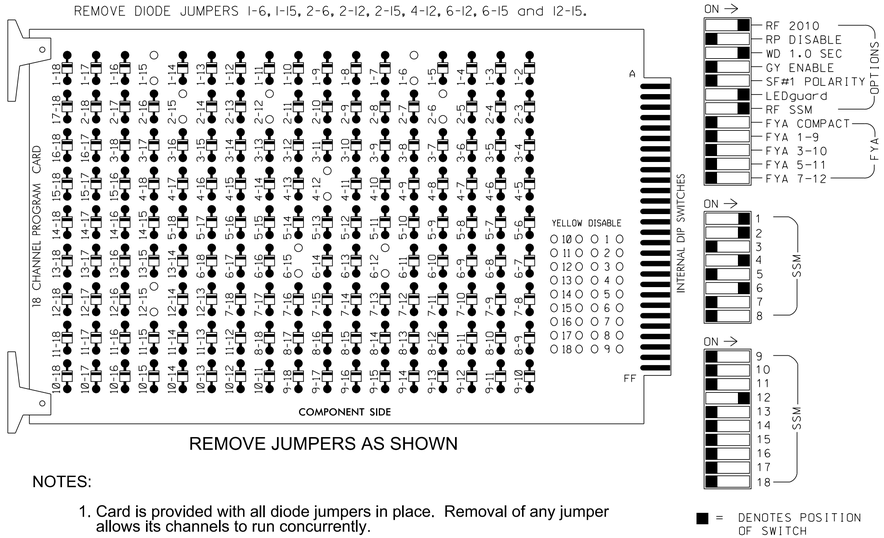
Docusign Envelope ID: 3713D2F4-C78E-4F43-8571-917995BAF5C7

PROJECT REFERENCE NO.	SHEET NO.
I-5898	Sig 11.1

18 CHANNEL IP CONFLICT MONITOR PROGRAMMING DETAIL

(remove jumpers and set switches as shown)





REMOVE JUMPERS AS SHOWN

■ = DENOTES POSITION OF SWITCH

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 controller to start up in phase 2 Green No Walk and 6 Green No Walk.
3. If this signal will be managed by an ATMS software, enable controller and detector logging for all detectors used at this location.
4. The cabinet and controller are part of the Signal System #: D07-09_Mayodan

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, S5, S8, S9, AUX S5
Phases Used.....1, 2, 4, 6
Overlap "1".....NOT USED
Overlap "2".....NOT USED
Overlap "3".....NOT USED
Overlap "4".....*

*See overlap programming detail

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.	11,12	21	22	NU	NU	41	42	43	NU	NU	61	62	P61, P62	NU	NU	NU	NU	NU	NU	NU	23	NU
RED		128	128				101	101			134	134									A101	
YELLOW		129	129				102				135	135										
GREEN			130				103				136											
RED ARROW	125					101																
YELLOW ARROW	126					102		102													A102	
FLASHING YELLOW ARROW																						
GREEN ARROW	127	130				103		103				136									A103	
✋													119									
🚶													121									

NU = Not Used

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.

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	∅ 1 1B	∅ 2 2A	SLOT EMPTY	SLOT EMPTY	∅ 4 4A	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	∅ 6 PED DC ISOLATOR	FS DC ISOLATOR
	L	NOT USED	NOT USED	NOT USED			∅ 4 4B							NOT USED	ST DC ISOLATOR
FILE "J"	U	SLOT EMPTY	∅ 6 6A	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY
	L		NOT USED												

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 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	3.0	_	X	_	X	_
1B	TB2-5,6	I2U	39	1	2	1	...	...	X	_	X	_
2A	TB2-9,10	I3U	63	29	4	2	...	...	X	X	X	_
4A	TB4-9,10	I6U	41	3	8	4	_	_	X	_	X	_
4B	TB4-11,12	I6L	45	7	9	4	15.0	_	X	_	X	_
6A	TB3-5,6	J2U	40	2	16	6	_	_	X	X	X	_
PED PUSH BUTTONS												
P61,P62	TB8-7,9	I13U	68	34	6	PED 6						

NOTE:
INSTALL DC ISOLATOR IN INPUT FILE SLOT I13.

INPUT FILE POSITION LEGEND: J2L
FILE J
SLOT 2
LOWER

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 07-1475
DESIGNED: August 2025
SEALED: 8/1/2025
REVISED: N/A

Signal Upgrade - Final Design
Electrical Detail - Sheet 1 of 2

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

ELECTRICAL AND PROGRAMMING DETAILS FOR:

US 311/NC 135 at US 220 Southbound Ramps

Division 7 | Rockingham County | Mayodan

PLAN DATE: August 2025 | REVIEWED BY:
PREPARED BY: Golam Moinuddin | REVIEWED BY:

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 034454 ENGINEER GOLAM M MOINUDDIN

Signed by: Golam Moinuddin 02897C8B27ED4EC... 8/1/2025 DATE

SIG. INVENTORY NO. 07-1475

Prepared for the Offices of: Transportation Mobility and Safety Division, Traffic Engineering Branch, Signals Management Section, NC DEPARTMENT OF TRANSPORTATION

Prepared in the Offices of:
Johnson, Mirmiran, & Thompson Inc.
4700 Falls of Neuse Rd, Suite 100,
Raleigh, NC, 27606
License No: C-3097
750 N.Greenfield Pkwy,Garner,NC 27529

8/1/2025 2:58:47 PM
J:\07147\5.Roadway\File\20250210.dgn
User:GMoinuddin