

(remove jumpers and set switches as shown)

The diagram shows the 18 Channel Program Card, which is a rectangular board with 18 channels. The top edge is labeled "18 CHANNEL PROGRAM CARD". The bottom edge is labeled "COMPONENT SIDE". The card is populated with 18 integrated circuits (ICs), each with a unique pin configuration. The ICs are arranged in a single row, with their pins extending downwards. The pin configurations are as follows:

- IC 1: 10-18, 11-18, 12-18, 13-18, 14-18, 15-18, 16-18, 17-18, 1-18
- IC 2: 10-17, 11-17, 12-17, 13-17, 14-17, 15-17, 16-17, 2-18, 1-17
- IC 3: 10-16, 11-16, 12-16, 13-16, 14-16, 15-16, 3-18, 2-17, 1-16
- IC 4: 10-15, 11-15, 12-15, 13-15, 14-15, 4-18, 3-17, 2-16, 1-15
- IC 5: 10-14, 11-14, 12-14, 13-14, 5-18, 4-17, 3-16, 2-15, 1-14
- IC 6: 10-13, 11-13, 12-13, 6-18, 5-17, 4-16, 3-15, 2-14, 1-13
- IC 7: 10-12, 11-12, 7-18, 6-17, 5-16, 4-15, 3-14, 2-13, 1-12
- IC 8: 10-11, 8-18, 7-17, 6-16, 5-15, 4-14, 3-13, 2-12, 1-11
- IC 9: 9-18, 8-17, 7-16, 6-15, 5-14, 4-13, 3-12, 2-11, 1-10
- IC 10: 9-17, 8-16, 7-15, 6-14, 5-13, 4-12, 3-11, 2-10, 1-9
- IC 11: 9-16, 8-15, 7-14, 6-13, 5-12, 4-11, 3-10, 2-9, 1-8
- IC 12: 9-15, 8-14, 7-13, 6-12, 5-11, 4-10, 3-9, 2-8, 1-7
- IC 13: 9-14, 8-13, 7-12, 6-11, 5-10, 4-9, 3-8, 2-7, 1-6
- IC 14: 9-13, 8-12, 7-11, 6-10, 5-9, 4-8, 3-7, 2-6, 1-5
- IC 15: 9-12, 8-11, 7-10, 6-9, 5-8, 4-7, 3-6, 2-5, 1-4
- IC 16: 9-11, 8-10, 7-9, 6-8, 5-7, 4-6, 3-5, 2-4, 1-3
- IC 17: 9-10, 8-9, 7-8, 6-7, 5-6, 4-5, 3-4, 2-3, 1-2
- IC 18: 9-10, 8-9, 7-8, 6-7, 5-6, 4-5, 3-4, 2-3, 1-2

On the right side of the card, there are 18 internal dip switches, labeled "INTERNAL DIP SWITCHES". Each switch is a small component with two pins. The switches are arranged in a single row, with their pins extending to the right. The switches are labeled with numbers 1 through 18. The switches are currently in the "DOWN" position, which is indicated by a small circle next to the number. The switches are labeled as follows:

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

The card is also labeled "FF" on the left side and "A" on the right side.

REMOVE JUMPERS AS SHOWN

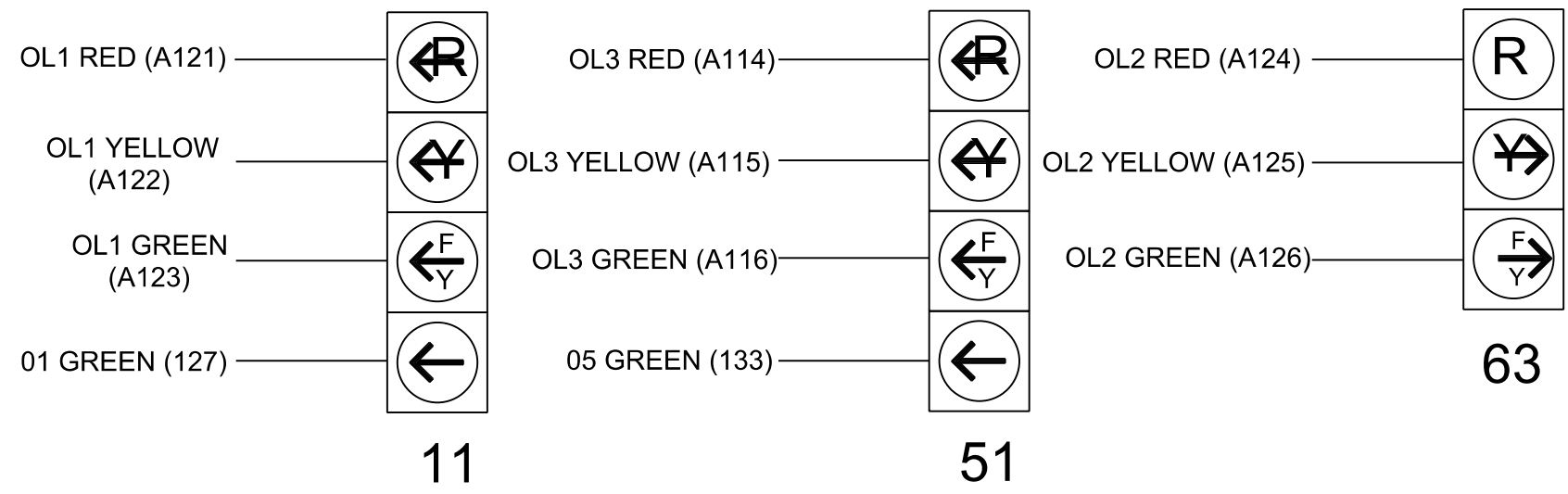
1. Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
2. Ensure jumpers SEL2-SEL5 and SEL9 are present on the monitor board.
3. Ensure that the Red Enable is active at all times during normal operation.
4. Integrate monitor with Ethernet network in cabinet.

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 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. Program phases 4 and 8 for Simultaneous Start.
5. If this signal will be managed by an ATMS software, enable controller and detector logging for all detectors used at this location.

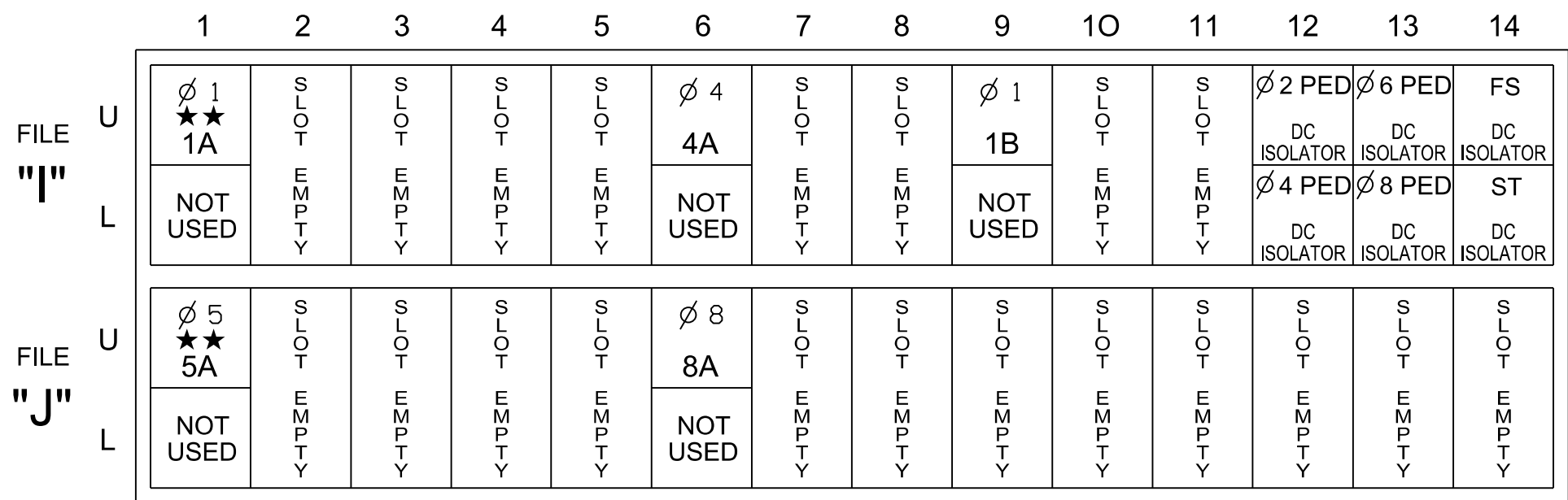
Controller.....	2070LX
Cabinet.....	332 w/ Aux
Software.....	Q-Free MAXTIME
Cabinet Mount.....	Base
Output File Positions.....	18 With Aux. Output File
Load Switches Used.....	S1, S2, S3, S5, S6, S7, S8, S9, S11, S12, AUX S1, AUX S2, AUX S4
Phases Used.....	1, 2, 2PED, 4, 4PED, 5, 6, 6PED, 8, 8PED
Overlap "1".....	*
Overlap "2".....	*
Overlap "3".....	*
Overlap "4".....	NOT USED

FYA SIGNAL WIRING DETAIL

(wire signal heads as shown)



(front view)



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

FS = FLASH SENSE
ST = STOP TIME

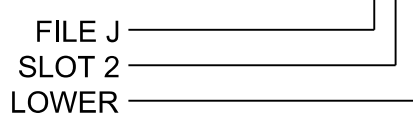
!If present, remove jumpers from I1-W to J4-W and J1-W to I4-W on rear of input file.

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★ 29★	1 6	15.0 3.0		X X		X X	
1B	TB6-9,10	I6U	60	22	13	1	15.0		X		X	
4A	TB4-9,10	I6U	41	3	8	4	10.0		X		X	
5A	TB3-1,2	J1U	55	17 -	15★ 31★	5 2	15.0 3.0		X X		X X	
8A	TB5-9,10	J6U	42	4	22	8	3.0		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 Vehicle Detector Setup Programming Detail for Alternate Phasing on Sheet 2.

INPUT FILE POSITION LEGEND: J2L

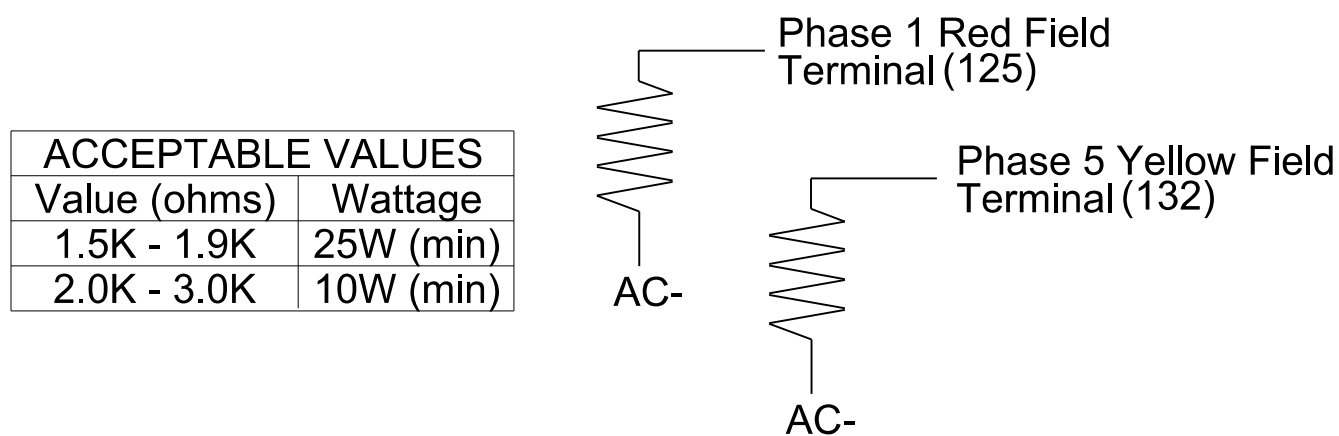


Countdown Ped Signals are required to display timing only during Ped Clearance Interval. Consult Ped Signal Module user's manual for instructions on selecting this feature.

For zones 1A, 2A, 5A, and 6A install a video 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 zones 1A and 5A, inputs associated with the typical slots for a NCDOT installation are compatible with time of day instructions located on sheet 2 of this electrical details.

(install resistors as shown)



SIGNAL UPGRADE - TEMPORARY DESIGN 1
(CONSTRUCTION PHASE I STEPS 2 THRU 6)
ELECTRICAL DETAIL - SHEET 1 OF 2

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 05-2103T1
DESIGNED: June 2026
SEALED: June 9, 2026
REVISED:

ELECTRICAL AND PROGRAMMING

Prepared for the Offices of:



750 N.Greenfield Pkwy.Garner,NC 27529

SR 2052 (ROGERS RD)
AT
HERITAGE BRANCH RD

DIVISION 5 WAKE COUNTY WAKE FOREST

PLAN DATE: JUNE 2026	REVIEWED BY: DSEARS
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PREPARED BY: WPJONES	REVIEWED BY:
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REVISIONS	INIT.	DATE

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SEAL



DocuSigned by:
A. 17.5

David / Starr 6/9/2026

SIGNATURE	DATE
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SIG. INVENTORY NO. 05-2103T