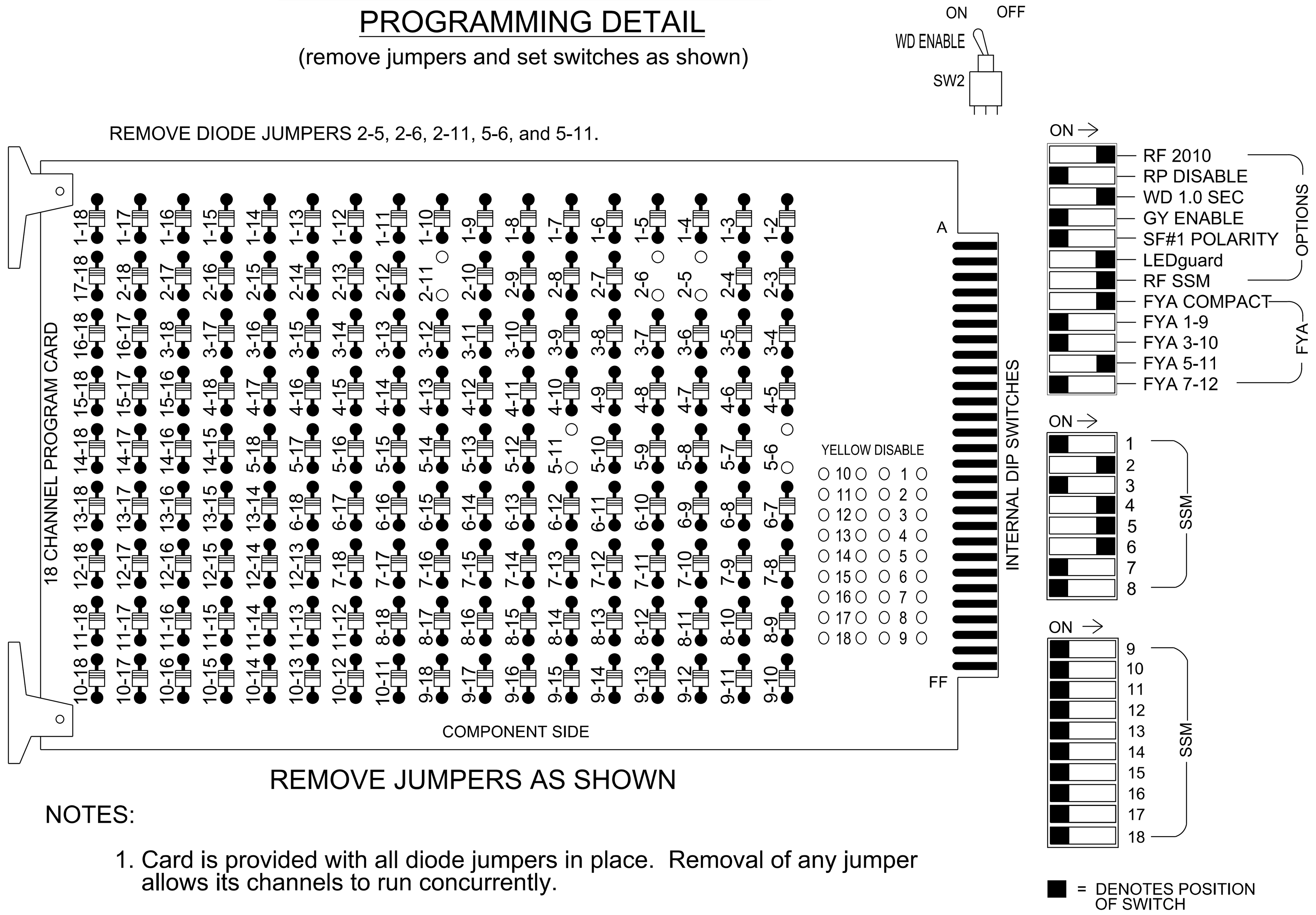
18 CHANNEL CONFLICT MONITOR PROGRAMMING DETAIL

(remove jumpers and set switches as shown)

REMOVE DIODE JUMPERS 2-5, 2-6, 2-11, 5-6, and 5-11.



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. 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. !

! 6. Install jumper to SEL15 position. !

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 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 a temporary Time Based Coordination System.

EQUIPMENT INFORMATION

Controller..2070LX
Cabinet...336
Software...Q-Free MAXTIME
Cabinet Mount....................................Pole
Output File Positions..........................12
Load Switches Used...........................S2, S5, S7, S8, S9
Phases Used.......................................2, 4, 5, 6
Overlap "1"..NOT USED
Overlap "2"..NOT USED
Overlap "3"..*
Overlap "4"..NOT USED

*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
CMU CHANNEL NO.	1	2	13	3	4	14	5	6	11	15	7	8	16
PHASE	1	2	2 PED	3	4	4 PED	OL3	6	5 GRN	6 PED	7	8	8 PED
SIGNAL HEAD NO.	NU	21,22	NU	NU	41,42	NU	51★	61,62	51★	NU	NU	NU	NU
RED		128			101			134					
YELLOW		129			102			135					
GREEN		130			103			136					
RED ARROW							131						
YELLOW ARROW							132						
FLASHING YELLOW ARROW							133						
(hand)													
GREEN ARROW									120				
(walk)										*			

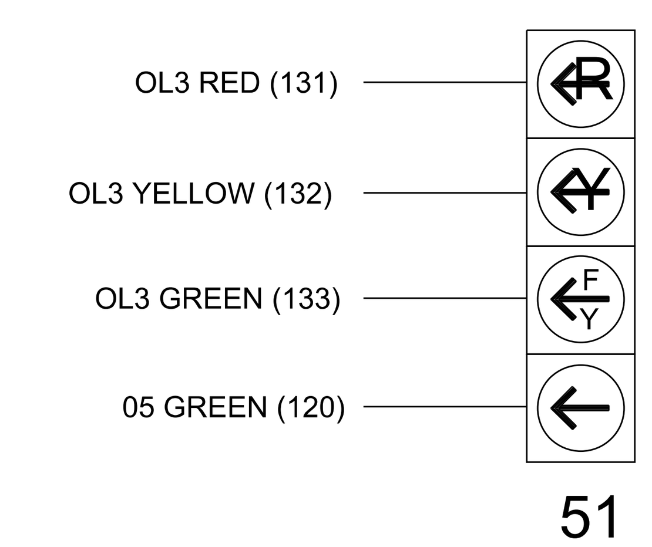
NU = Not Used

* 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)



INPUT FILE POSITION LAYOUT

(front view)

FILE "I"		1	2	3	4	5	6	7	8	9	10	11	12	13	14
	U	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	FS DC ISOLATOR
	L														ST DC ISOLATOR

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

FS = FLASH SENSE
ST = STOP TIME

SPECIAL DETECTOR NOTE

Install a multi-zone 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.

PED YELLOW CONFLICT MONITOR WIRING DETAIL

(make cabinet wiring changes as shown below)

In order to use FYA COMPACT mode with the 16 or 18 Channel Monitor, the cabinet must be wired such that the (unused) Ped Yellow load switch outputs are wired to the conflict monitor as follows: From 6 PY (field term. 120) to chan. 10 green (monitor pin R).

Follow the instructions below to make appropriate connections:

STEP 1: Fold down rear panel of output file.

STEP 2: Find unused wiring harness fom conflict monitor card edge connector (which should be tied and bundled together).

STEP 3: Find the connector that correspond to the following conflict monitor card edge pins and solder wire the the appropiate terminal on the rear of the output file shown below:

CMU-R ----------------------------6PY (term. 120)

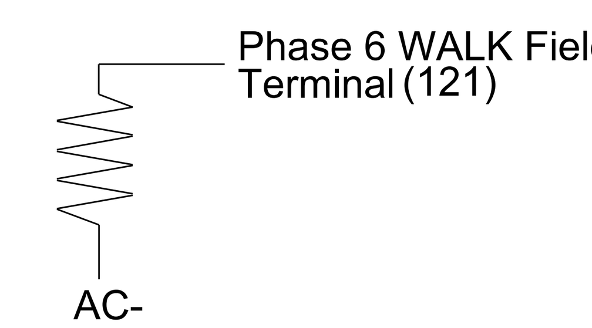
NOTE: Some cabinet manufacturers use keyed connectors to accomlplish this wiring configuration. If connectors are used, fold down the rear panel of the output file and find the set of 3 keyed connectors and connect them as shown below:

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

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)



THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 14-1146T1
DESIGNED: April 2023
SEALED: April 28, 2023
REVISED: __________

RS&H
NC FIRM LICENSE No: F-0493
1520 SOUTH BOULEVARD, SUITE 200
CHARLOTTE, NC 28203
(704) 752-0610

Temporary Signal 1 - TCP Phase IV
Electrical Detail Sheet 1 of 2

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Electrical and Programming Details For:

NC 280 (Asheville Highway)
at
SR 1511 (Deavor Road) /
Forest Gate Drive

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

Division 14 Transylvania County Brevard

PLAN DATE: April 2023	REVIEWED BY: V. Kaiser
PREPARED BY: S.G. Haynie	REVIEWED BY:

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 029531 ENGINEER STEVEN G. HAYNIE

DocuSigned by: Steven G. Haynie 4/28/2023
D633DCC9A5D44B6...
DATE

SIG. INVENTORY NO. 14-1146T1