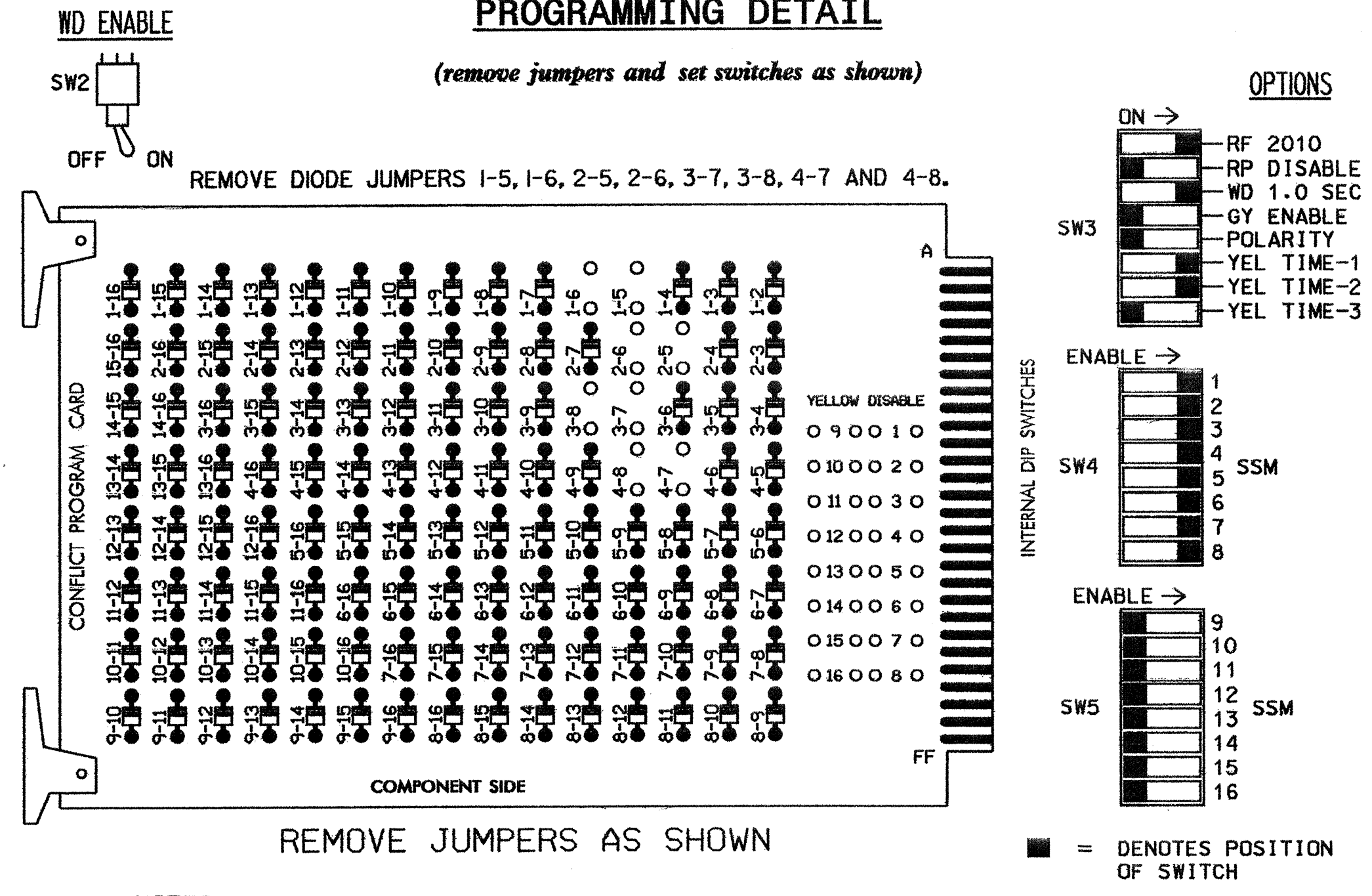


**EDI MODEL 2010ECL CONFLICT MONITOR**

**PROGRAMMING DETAIL**



**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. ENSURE THAT RED ENABLE IS ACTIVE AT ALL TIMES DURING NORMAL OPERATION. TO PREVENT RED FAILURES ON UNUSED MONITOR CHANNELS, TIE UNUSED RED MONITOR INPUTS 9,10, 11,12,13,14,15 & 16 TO LOAD SWITCH AC+ PER THE CABINET MANUFACTURER'S INSTRUCTIONS.
3. PROGRAM CONTROLLER TO START UP IN PHASES 2 AND 6 GREEN.
4. ENABLE SIMULTANEOUS GAP-OUT FEATURE, ON CONTROLLER UNIT, FOR ALL PHASES.
5. PROGRAM PHASES 4 AND 8, ON CONTROLLER UNIT, FOR DUAL ENTRY.
6. THE CABINET AND CONTROLLER ARE PART OF THE GASTONIA CITY SIGNAL SYSTEM.

**FIELD CONNECTION HOOK-UP CHART**

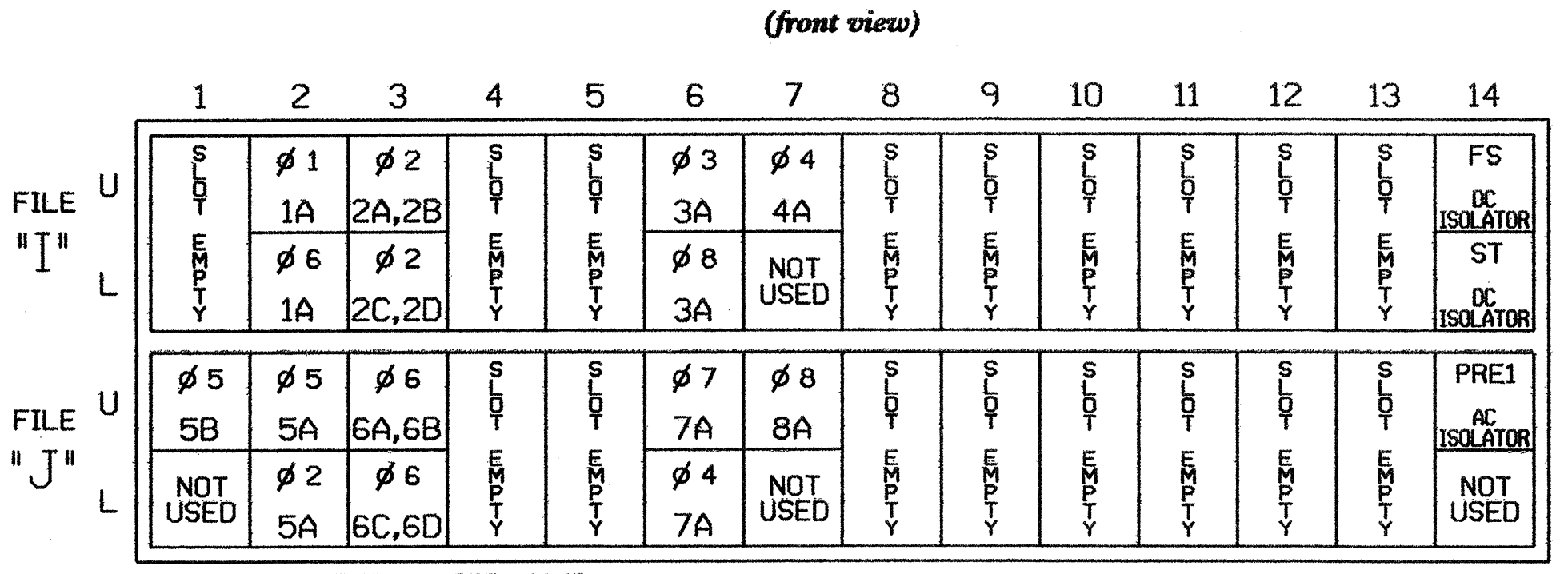
LOAD SWITCH NO.	S1	S2	S2P	S3	S4	S4P	S5	S6	S6P	S7	S8	S8P
PHASE	1	2	2 PED	3	4	4 PED	5	6	6 PED	7	8	8 PED
SIGNAL HEAD NO.	61	21,22	NU	81	41,42	NU	21,42	61,62	NU	41	81,82	NU
GREEN		130			103			136			109	
YELLOW		129			102			135			108	
RED	*	128		*	101		*	134		*	107	
RED ARROW												
YELLOW ARROW	126			117			132			123		
GREEN ARROW	127			118			133			124		

NU = NOT USED  
 \* DENOTES INSTALL LOAD RESISTOR. SEE LOAD RESISTOR INSTALLATION DETAIL THIS PAGE.

**EQUIPMENT INFORMATION**

CONTROLLER.....CONTRACTOR SUPPLIED 2070L  
 CABINET .....CONTRACTOR SUPPLIED 332  
 SOFTWARE .....ECONOLITE OASIS 3.00.81  
 CABINET MOUNT.....BASE  
 OUTPUT FILE POSITIONS...12  
 LOAD SWITCHES USED.....S1,S2,S3,S4,S5,S6,S7,S8  
 PHASES USED.....1,2,3,4,5,6,7,8  
 OVERLAPS.....NONE

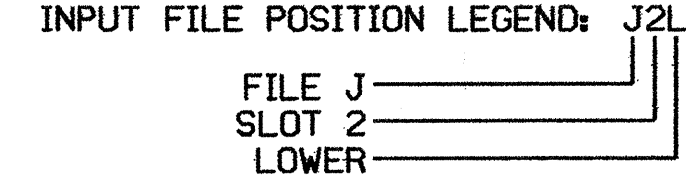
**INPUT FILE POSITION LAYOUT**



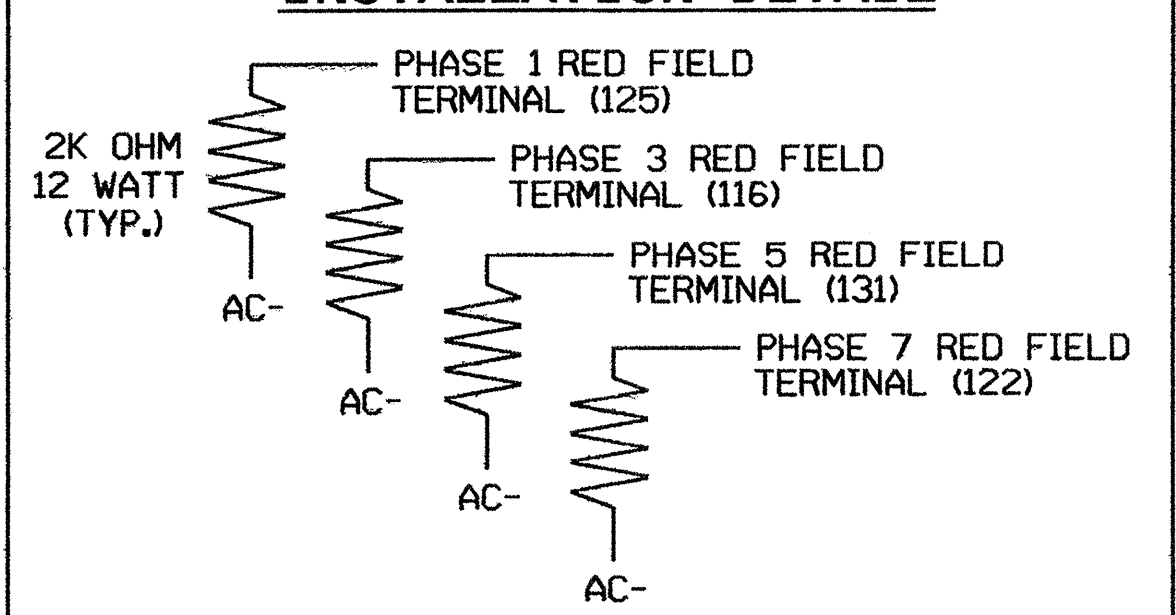
**INPUT FILE CONNECTION & PROGRAMMING CHART**

LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	INPUT ASSIGNMENT NO.	DETECTOR NO.	NEMA PHASE	CALL	EXTEND	FULL TIME DELAY	STRETCH TIME	DELAY TIME
1A <sup>1</sup>	TB2-5,6	I2U	39	1	2	1	Y	Y			15
	TB2-7,8	I2L	43	5	12	6	Y	Y			
2A,2B	TB2-9,10	I3U	63	25	32	2	Y	Y		1.8	
2C,2D	TB2-11,12	I3L	76	38	42	2	Y	Y			
3A <sup>2</sup>	TB4-9,10	I6U	41	3	4	3	Y	Y			15
	TB4-11,12	I6L	45	7	14	8	Y	Y			3
4A	TB6-1,2	I7U	65	27	34	4	Y	Y			
5B	TB3-1,2	J1U	55	17	5	5	Y	Y			15
5A <sup>3</sup>	TB3-5,6	J2U	40	2	6	5	Y	Y			15
	TB3-7,8	J2L	44	6	16	2	Y	Y			
6A,6B	TB3-9,10	J3U	64	26	36	6	Y	Y		1.8	
6C,6D	TB3-11,12	J3L	77	39	46	6	Y	Y			
7A <sup>4</sup>	TB5-9,10	J6U	42	4	8	7	Y	Y			15
	TB5-11,12	J6L	46	8	18	4	Y	Y			3
8A	TB7-1,2	J7U	66	28	38	8	Y	Y			10

- 1 ADD JUMPERS FROM TB2-5 TO TB2-7, AND FROM TB2-6 TO TB2-8.
- 2 ADD JUMPERS FROM TB4-9 TO TB4-11, AND FROM TB4-10 TO TB4-12.
- 3 ADD JUMPERS FROM TB3-5 TO TB3-7, AND FROM TB3-6 TO TB3-8.
- 4 ADD JUMPERS FROM TB5-9 TO TB5-11, AND FROM TB5-10 TO TB5-12.



**LOAD RESISTOR INSTALLATION DETAIL**



NOTE: THE PURPOSE OF THESE RESISTORS IS TO LOAD THE CHANNEL RED MONITOR INPUTS IN ORDER FOR THE SIGNAL SEQUENCE MONITOR TO USE THE FULL SIGNAL SEQUENCE MONITORING CAPABILITY ON CHANNELS THAT DO NOT USE THE RED DISPLAY IN THE FIELD.

THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 12-0335  
 DESIGNED: 10/30/03  
 SEALED: 08/09/04  
 REVISED:

**BACK-UP PROTECTION PROGRAMMING DETAIL**

1. FROM MAIN MENU PRESS '2' (PHASE CONTROL), THEN '1' (PHASE CONTROL FUNCTIONS), SCROLL TO THE BOTTOM OF THE MENU AND ENABLE DYNAMIC/BACKUP CONTROL FUNCTIONS 1,2,3, AND 4.
2. FROM PHASE CONTROL FUNCTIONS MENU PRESS '2' (DYNAMIC/BACKUP CONTROL FUNCTIONS).

DYNAMIC/BACKUP CONTROL FUNCTION #01  
 OVERLAPS: ABCDEFGHIJKLMNOP  
 IF OVERLAPS ARE ACTIVE:  
 OR PHASES: 12345678910111213141516  
 IF PHASES ARE ON: X  
 OMIT PHASES: X  
 CALL PHASES: X

PRESS 'NEXT'

DYNAMIC/BACKUP CONTROL FUNCTION #02  
 OVERLAPS: ABCDEFGHIJKLMNOP  
 IF OVERLAPS ARE ACTIVE:  
 OR PHASES: 12345678910111213141516  
 IF PHASES ARE ON: X  
 OMIT PHASES: X  
 CALL PHASES: X

PRESS 'NEXT'

DYNAMIC/BACKUP CONTROL FUNCTION #03  
 OVERLAPS: ABCDEFGHIJKLMNOP  
 IF OVERLAPS ARE ACTIVE:  
 OR PHASES: 12345678910111213141516  
 IF PHASES ARE ON: X  
 OMIT PHASES: X  
 CALL PHASES: X

PRESS 'NEXT'

DYNAMIC/BACKUP CONTROL FUNCTION #04  
 OVERLAPS: ABCDEFGHIJKLMNOP  
 IF OVERLAPS ARE ACTIVE:  
 OR PHASES: 12345678910111213141516  
 IF PHASES ARE ON: X  
 OMIT PHASES: X  
 CALL PHASES: X

BACKUP PROTECTION PROGRAMMING COMPLETE

SIGNAL UPGRADE - FINAL DESIGN - SHEET 1 OF 2

ELECTRICAL AND PROGRAMMING DETAILS FOR: **NC 274 (BESSEMER CITY ROAD)**

AT **SR 1334 (JENKINS DAIRY ROAD) & SR 1135 (SHANNON BRADLEY ROAD)**

DIVISION 12 GASTON COUNTY GASTONIA

PLAN DATE: JULY 2004 REVIEWED BY: T. J. J.

PREPARED BY: WILLIAM HAIRSTON REVIEWED BY:

REVISIONS: \_\_\_\_\_

122 N. McDowell St., Raleigh, NC 27603

Prepared in the Office of: **North Carolina State University**

SEAL: **WILLIAM HAIRSTON**, ENGINEER, 022013

SIG. INVENTORY NO. 12-0335