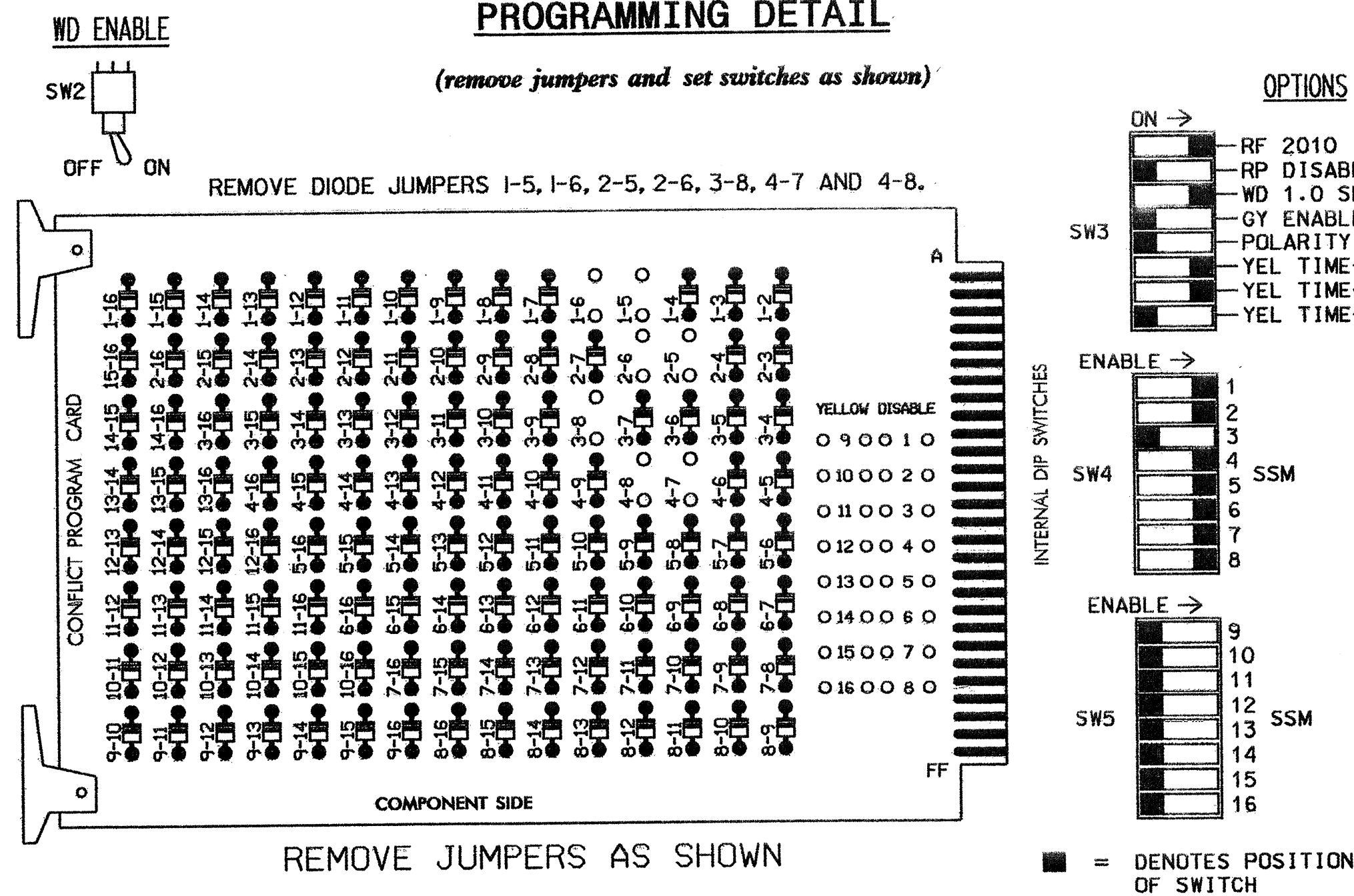


EDI MODEL 2010ECL CONFLICT MONITOR

PROGRAMMING DETAIL



NOTES:

- CARD IS PROVIDED WITH ALL DIODE JUMPERS IN PLACE. REMOVAL OF ANY JUMPER ALLOWS ITS CHANNELS TO RUN CONCURRENTLY.
- MAKE SURE JUMPERS SEL1-SEL5 ARE PRESENT ON THE MONITOR BOARD.

INPUT FILE POSITION LAYOUT

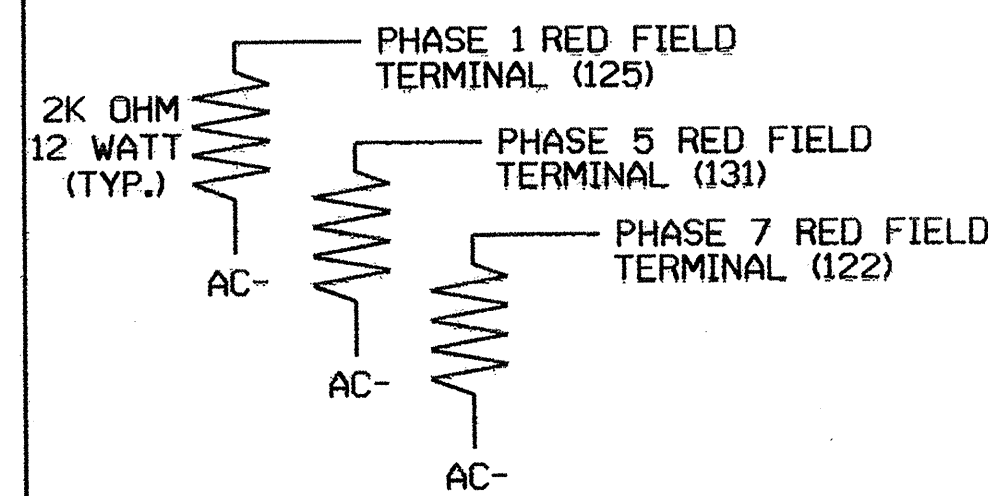
(front view)

FILE U	1	2	3	4	5	6	7	8	9	10	11	12	13	14	FS DC ISOLATOR
"I"	∅ 1 1A	∅ 2 2A,2B	∅ 3 1A	∅ 4 2C,2D	∅ 5 1A	∅ 6 2C,2D	∅ 7 NOT USED	∅ 8 NOT USED	∅ 9 NOT USED	∅ 10 NOT USED	∅ 11 NOT USED	∅ 12 NOT USED	∅ 13 NOT USED	∅ 14 NOT USED	ST DC ISOLATOR
FILE U	1	2	3	4	5	6	7	8	9	10	11	12	13	14	PRE1 AC ISOLATOR
"J"	∅ 5 5A	∅ 6 6A,6B	∅ 7 5A	∅ 8 6C,6D	∅ 9 5A	∅ 10 6C,6D	∅ 11 7A	∅ 12 8A	∅ 13 7A	∅ 14 NOT USED	∅ 15 NOT USED	∅ 16 NOT USED	∅ 17 NOT USED	∅ 18 NOT USED	NOT USED

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

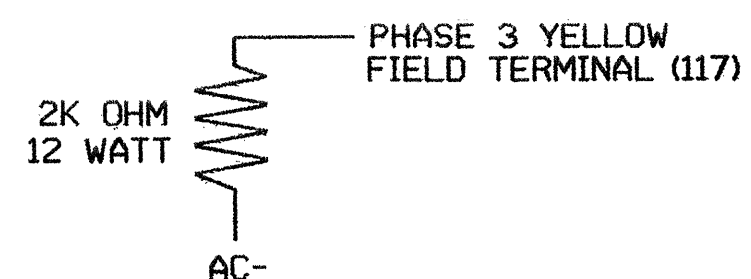
FS = FLASH SENSE
ST = STOP TIME
PRE = PREEMPT

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.

LOAD RESISTOR INSTALLATION DETAIL



NOTE: THE PURPOSE OF THIS RESISTOR IS TO LOAD THE CHANNEL YELLOW MONITOR INPUT IN ORDER TO PREVENT THE SIGNAL SEQUENCE MONITOR FROM DETECTING ANY POSSIBLE 'PHANTOM' (OR FALSE) CONFLICT, AS THIS CHANNEL HAS NO YELLOW FIELD DISPLAY.

NOTES

- 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.
- 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 3,9, 10,11,12,13,14,15 & 16 TO LOAD SWITCH AC+ PER THE CABINET MANUFACTURER'S INSTRUCTIONS.
- PROGRAM CONTROLLER TO START UP IN PHASES 2 AND 6 GREEN.
- ENABLE SIMULTANEOUS GAP-OUT FEATURE, ON CONTROLLER UNIT, FOR ALL PHASES.
- PROGRAM PHASES 4 AND 8, ON CONTROLLER UNIT, FOR DUAL ENTRY.
- THE CABINET AND CONTROLLER ARE PART OF THE GASTONIA CITY SIGNAL SYSTEM.

EQUIPMENT INFORMATION

CONTROLLER.....CONTRACTOR SUPPLIED 2070L
CABINETCONTRACTOR SUPPLIED 332
SOFTWAREECONOLITE 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

* USED DURING PREEMPT ONLY

PREEMPT ONLY PHASE OMIT NOTE

(program controller as shown below)

FROM MAIN MENU PRESS '2' (PHASE CONTROL), THEN '1' (PHASE CONTROL FUNCTIONS). PROGRAM PHASE 3 FOR 'OMIT PHASE' AND PHASES 1, 2, 4, 5, 6, 7 AND 8 FOR 'STARTUP CALLS'. THIS IS TO PREVENT PHASE 3 FROM BEING SERVED WHEN NOT IN PREEMPT.

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 ¹	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		
4A	TB4-9,10	I6U	41	3	4	4	Y	Y			10
	5A ²	TB3-5,6	J2U	40	2	6	Y	Y			15
6A,6B	TB3-7,8	J2L	44	6	16	2	Y	Y			
	6C,6D	TB3-9,10	J3U	64	26	36	6	Y	Y	1.8	
7A ³	TB3-11,12	J3L	77	39	46	6	Y	Y			
	TB5-9,10	J6U	42	4	8	7	Y	Y			15
8A	TB5-11,12	J6L	46	8	18	4	Y	Y			3
	TB7-1,2	J7U	66	28	38	8	Y	Y			10

- ADD JUMPERS FROM TB2-5 TO TB2-7, AND FROM TB2-6 TO TB2-8.
- ADD JUMPERS FROM TB3-5 TO TB3-7, AND FROM TB3-6 TO TB3-8.
- ADD JUMPERS FROM TB5-9 TO TB5-11, AND FROM TB5-10 TO TB5-12.

INPUT FILE POSITION LEGEND: J2L



THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 12-0012
DESIGNED: 10/30/03
SEALED: 08/09/04
REVISED:

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	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							132			123	
GREEN ARROW	127			118				133			124	
↓												
↓												

NU = NOT USED

* DENOTES INSTALL LOAD RESISTOR. SEE LOAD RESISTOR INSTALLATION DETAIL THIS PAGE.

BACK-UP PROTECTION PROGRAMMING DETAIL

(program controller as shown below)

- 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 AND 3.
- FROM PHASE CONTROL FUNCTIONS MENU PRESS '2' (DYNAMIC/BACKUP CONTROL FUNCTIONS).

```
DYNAMIC/BACKUP CONTROL FUNCTION #01
OVERLAPS:;ABCDEFGHIJKLMNP
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:;ABCDEFGHIJKLMNP
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:;ABCDEFGHIJKLMNP
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 NC 275 (DALLAS-BESSEMER CITY ROAD) AND SR 1312 (OATES ROAD)**

DIVISION 12 GASTON COUNTY GASTONIA

PLAN DATE: **JULY 2004** REVIEWED BY: *T. Boyd*

PREPARED BY: **WILLIAM HAIRSTON** REVIEWED BY:

REVISIONS: _____ INIT. DATE

122 N. McDowell St., Raleigh, NC 27603

SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER GEORGE C. BRUNN

SIG. INVENTORY NO. 12-0012