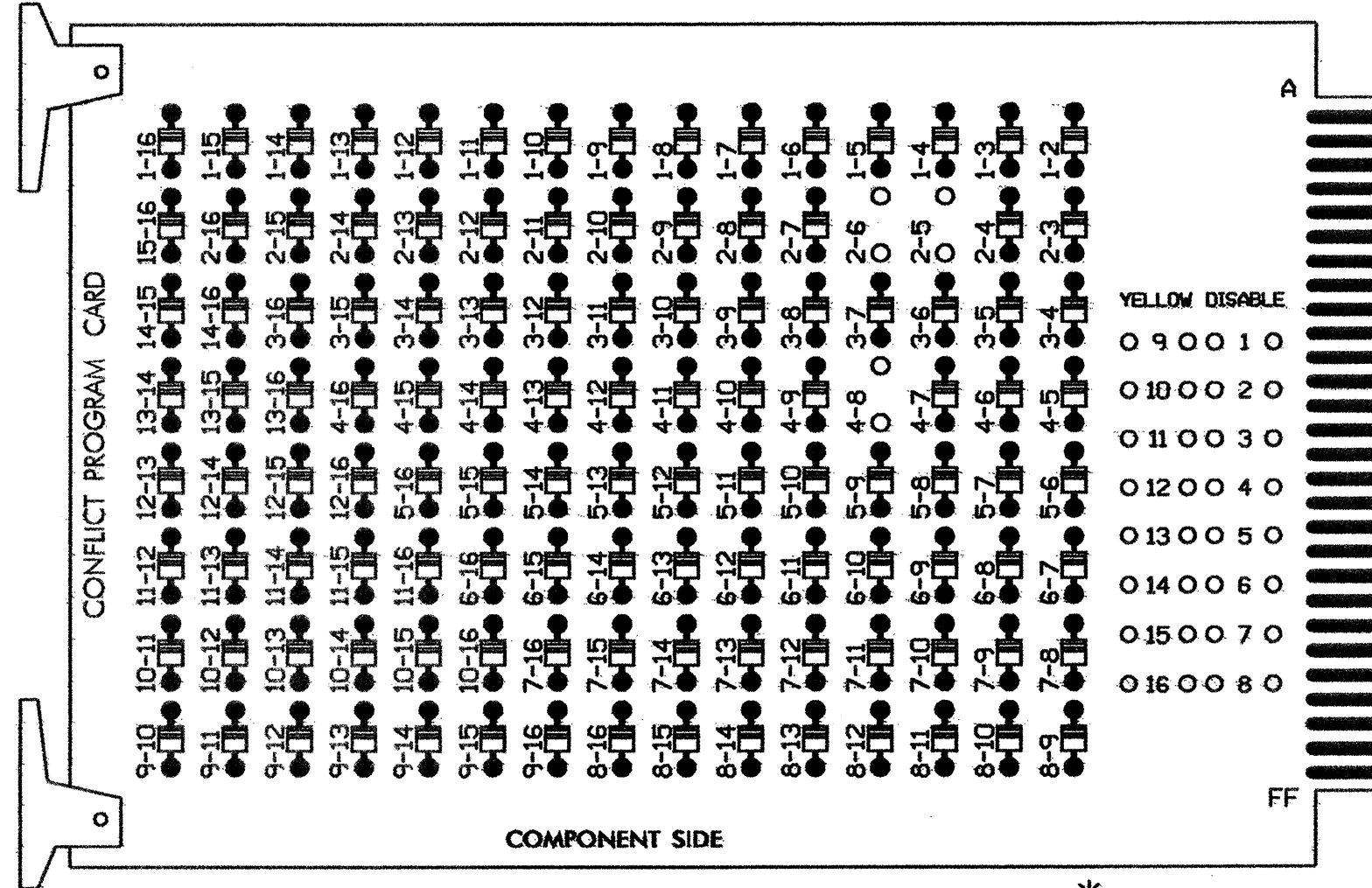


EDI MODEL 210ECL CONFLICT MONITOR PROGRAMMING DETAIL

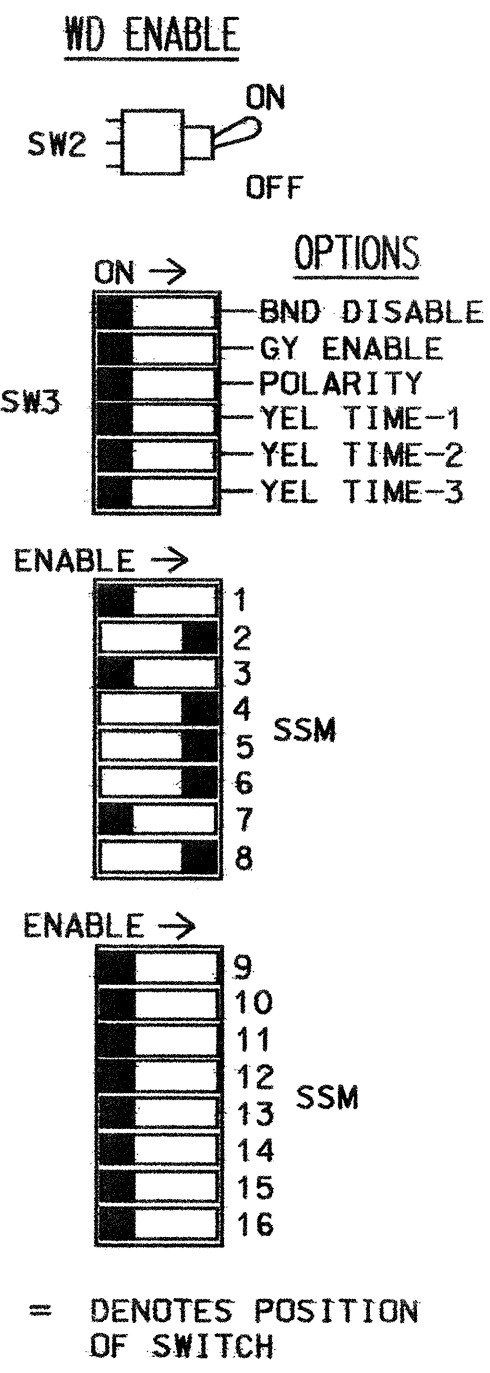
(remove jumpers and set switches as shown)

REMOVE DIODE JUMPERS 2-5, 2-6 AND 4-8.



REMOVE JUMPERS AS SHOWN*

* CARD IS PROVIDED WITH ALL DIODE JUMPERS IN PLACE. REMOVAL OF ANY JUMPER ALLOWS ITS CHANNELS TO RUN CONCURRENTLY. ENSURE THAT RED ENABLE IS ACTIVE AT ALL TIMES DURING NORMAL OPERATION.



NOTES

1. TO PREVENT "FLASH-CONFLICT" PROBLEMS, INSERT RED FLASH PROGRAM BLOCKS FOR ALL UNUSED VEHICLE LOAD SWITCHES IN THE OUTPUT FILE. VERIFY THAT SIGNAL HEADS FLASH IN ACCORDANCE WITH THE SIGNAL PLANS.
2. TO PREVENT RED FAILURES ON UNUSED MONITOR CHANNELS, TIE UNUSED RED MONITOR INPUTS: 1,3,7,9,10,11,12,13,14, 15 AND 16 TO LOAD SWITCH AC+ PER CABINET MANUFACTURER'S INSTRUCTIONS.
3. PROGRAM CONTROLLER TO START UP IN PHASES 2 AND 6 GREEN.
4. SET POWER-UP FLASH TIME TO 10 SECONDS AND IMPLEMENT WITHIN THE CONTROLLER PROGRAMMING.
5. ENABLE SIMULTANEOUS GAP-OUT FEATURE, ON CONTROLLER UNIT, FOR ALL PHASES.
6. PROGRAM PHASES 4 AND 8, ON CONTROLLER UNIT, FOR DOUBLE ENTRY.
7. PROGRAM PHASES 2 AND 6, ON CONTROLLER UNIT, FOR VOLUME DENSITY OPERATION.
8. THIS SIGNAL IS WITHIN THE CITY OF DURHAM SIGNAL SYSTEM.
9. METAL POLE MOUNTED LUMINAIRES ARE TO BE METERED SEPARATELY FROM THE SIGNAL.

EQUIPMENT INFORMATION

* CONTROLLER.....McCAIN TRAFFIC TYPE 170E
 * CABINETMcCAIN TRAFFIC MODEL 332
 * SOFTWAREBI TRANS 233NC2
 CABINET MOUNT.....BASE
 OUTPUT FILE POSITIONS...12
 LOAD SWITCHES USED.....S2,S4,S5,S6,S8
 PHASES USED.....2,4,5,6,8
 OVERLAPS.....NONE

EXISTING TO REMAIN IN USE*

FIELD CONNECTION HOOK-UP CHART

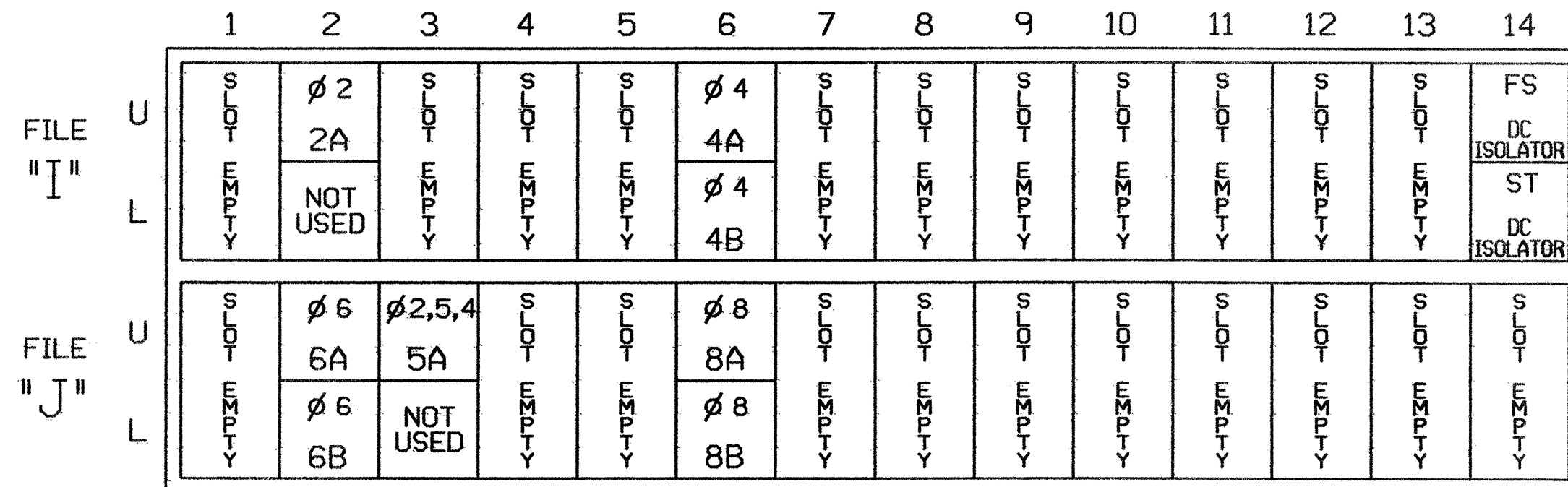
LOAD SWITCH NO.	S1	S2	S2P	S3	S4	S4P	S5	S6	S6P	S7	S8	S8P
PHASE	1	2	2 PED	3	4	4 PED	5	6	6 PED	7	8	8 PED
SIGNAL HEAD NO.	NU	21,22	NU	NU	41,42	NU	21	61,62	NU	NU	81,82	NU
GREEN		130			103			136			109	
YELLOW		129			102			135			108	
RED		128			101		*	134			107	
RED ARROW												
YELLOW ARROW								132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

NU = NOT USED

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

INPUT FILE POSITION LAYOUT

(front view)



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.	DETECTOR NO.	PIN NO.	ATTRIBUTES	NEMA PHASE
2A	TB2-5,6	I2U	1	39	4 5 7	2
4A	TB4-9,10	I6U	2	41	5 7	4
4B	TB4-11,12	I6L	3	45	5 7	4
6A	TB3-5,6	J2U	4	40	4 5 7	6
6B	TB3-7,8	J2L	5	44	1 5 7	6
5A	TB3-9,10	J3U	6	64	1 5 7	2
			7	64	5 7	5
8A	TB5-9,10	J6U	8	64	7	4
			9	42	5 7	8
8B	TB5-11,12	J6L	10	46	5 7	8

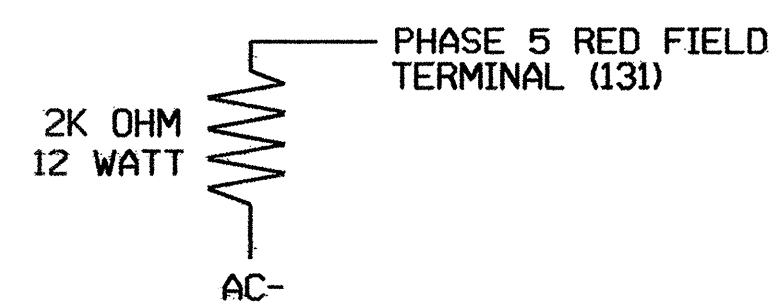
NOTE: PROGRAM DETECTOR DELAY AND CARRYOVER TIMES AS SPECIFIED ON SIGNAL DESIGN PLANS.

BACK-UP PROTECTION NOTES

TO ENSURE THAT THE CONTROLLER WILL NOT SEQUENCE FROM PHASE 2+6 DIRECTLY TO PHASE 2+5. SPECIAL PROGRAMMING HAS TO BE ENABLED IN THE BI TRANS 233NC2 SOFTWARE. PROGRAM 170E CONTROLLER AS FOLLOWS:

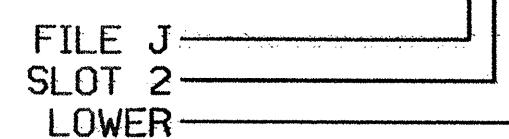
1. PROGRAM PHASE 5 AS PROTECTED/PERMITTED AT KEYPAD INPUT E/125+E+4=Ø5.
2. LOOP 5A WILL HAVE TO BE PROGRAMMED TO CALL PHASE 4 (WITH APPROPRIATE DELAY TIME) TO ALLOW CONTROLLER TO SEQUENCE THRU PHASE 4+8 BEFORE PROCEEDING TO PHASE 2+5. (SEE INPUT FILE PROGRAMMING ON THIS SHEET).

LOAD RESISTOR INSTALLATION DETAIL



NOTE: THE PURPOSE OF THIS RESISTOR IS TO LOAD THE CHANNEL RED MONITOR INPUT IN ORDER FOR THE SIGNAL SEQUENCE MONITOR TO USE THE FULL SIGNAL SEQUENCE MONITORING CAPABILITY ON THIS CHANNEL, WHICH DOES NOT USE THE RED DISPLAY IN THE FIELD.

INPUT FILE POSITION LEGEND: J2L

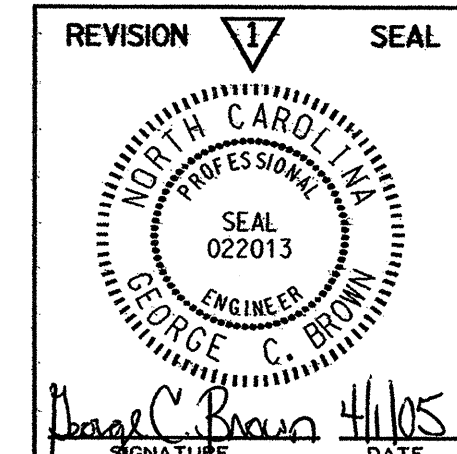


DETECTOR ATTRIBUTES LEGEND:

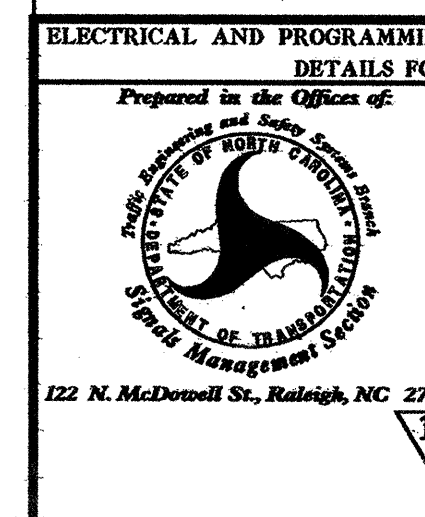
- 1-FULL TIME DELAY
- 2-PED CALL
- 3-RESERVED
- 4-COUNTING
- 5-EXTENSION
- 6-TYPE 3
- 7-CALLING
- 8-ALTERNATE

THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 05-0234
 DESIGNED: MAY 2001
 SEALED: 7/23/01
 REVISED: 3/2/05

TYPE 170 CONTROLLER & 332 CABINET



FINAL DESIGN



SR 1121 (CORNWALLIS ROAD) at SR 2017 (WEST INSTITUTE DRIVE) and IBM ENTRANCE

DIVISION 05	DURHAM COUNTY	RTP
PLAN DATE: MAY 2001	REVIEWED BY: CA HULTGREN	
PREPARED BY: SP PENNINGTON	REVIEWED BY: DE WARCEAU	
REVISIONS	INIT.	DATE
S&G ADDED YELLOW L.E.D.'S; MODIFIED NOTES AND CLEARANCE TIMES. FEB 3-2-05	PCB	4/11/05

Not a certified document as to the Original Document but Only as to the Revisions - This document originally Issued and sealed by Daren E. Marceau, #024910 on 7/23/01 This document is only certified as to the Revisions.