

**RAILROAD PREEMPTION WIRING DETAIL**

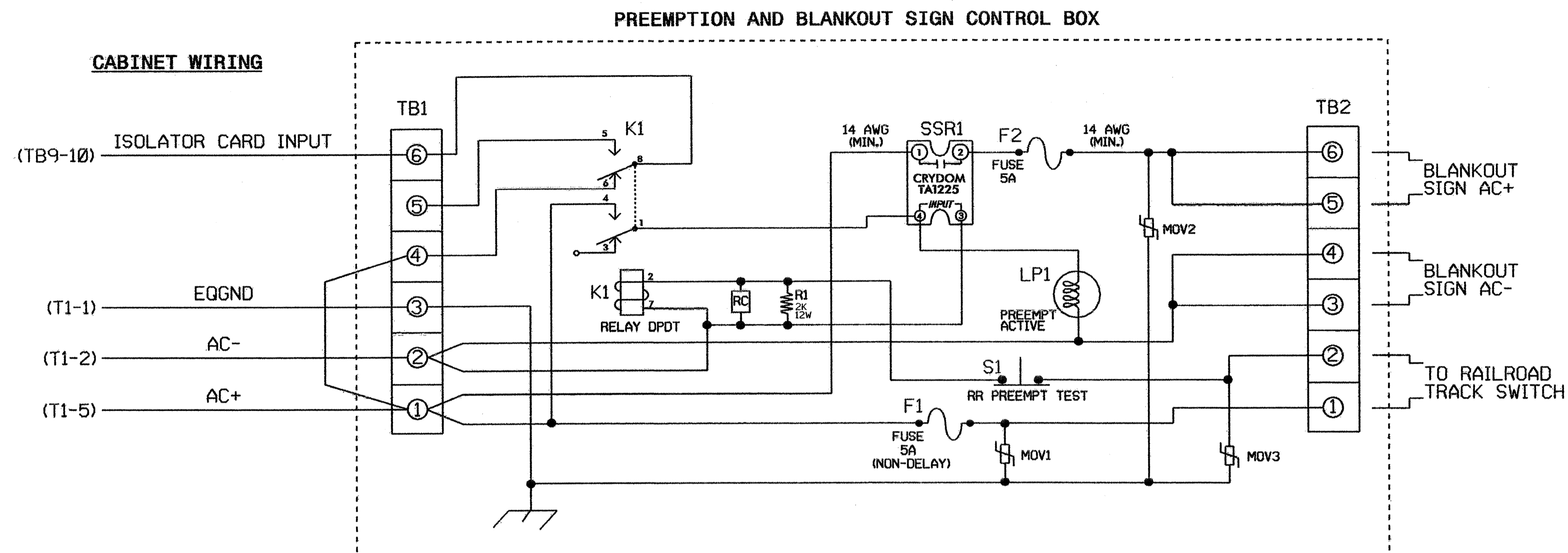
(wire as shown below)

**RAILROAD PREEMPTION PROGRAMMING DETAIL**

(program controller as shown below)

FROM MAIN MENU PRESS 'A' (PREEMPTION), THEN '1' (STANDARD PREEMPTIONS).

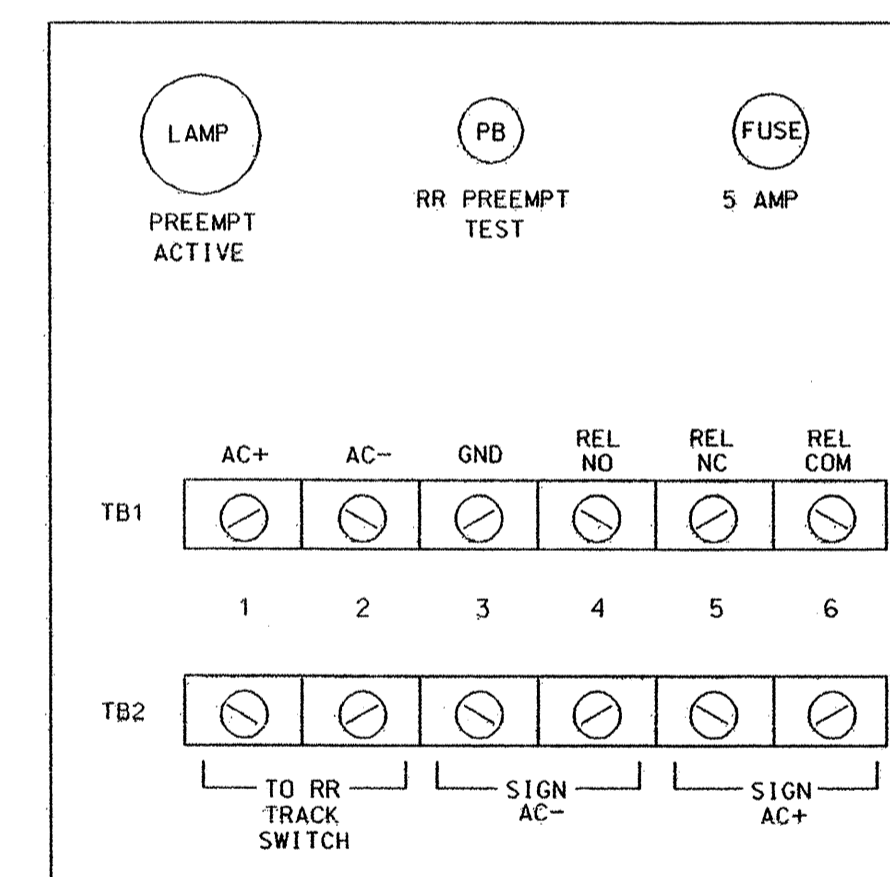
| PREEMPTION #1                        | SETTINGS (NEXT:1-10)    |
|--------------------------------------|-------------------------|
| INTERVAL/TIMING                      | CLEAR/DWELL PHASES      |
| GRN YEL RED                          | 12345678910111213141516 |
| 1 18 4.0 2.0                         | X X                     |
| 2 255 0.0 0.0                        | X X                     |
| 3 0 0.0 0.0                          |                         |
| 4 0 0.0 0.0                          |                         |
| 5 0 0.0 0.0                          |                         |
| EXIT CALLS                           |                         |
| OPTIONS                              |                         |
| PRIORITY (Y/N TO SELECT)             | .....HIGH               |
| DELAY TIMER (0-255 SEC)              | .....0                  |
| MIN GREEN BEFORE PRE (0= DEFAULT)    | .....1                  |
| PED CLEAR BEFORE PRE (0= DEFAULT)    | .....0                  |
| YELLOW CLEAR BEFORE PRE (0= DEFAULT) | .....5.0                |
| RED CLEAR BEFORE PRE (0= DEFAULT)    | .....3.0                |
| DWELL MIN TIMER (0-255 SEC)          | .....10                 |
| DWELL MAX TIMER (0=OFF,1-255MIN)     | .....0                  |
| DWELL HOLD-OVER TIMER (0-255)        | .....0                  |
| LATCH CALL?                          | .....N                  |
| LINK TO NEXT PREEMPT?                | .....N                  |
| ENABLE BACKUP PROTECTION?            | .....N                  |
| HOLD CLEAR 1 PHASES DURING DELAY?    | .....N                  |
| FAST GREEN FLASH DWELL PHASES?       | .....N                  |
| PED CLEARANCE THROUGH YELLOW?        | .....N                  |
| INHIBIT OVERLAP GREEN EXTENSION?     | .....N                  |
| SERVICE DURING SOFTWARE FLASH?       | .....N                  |
| REST IN RED DURING DWELL INTERVAL?   | .....N                  |
| FLASH DWELL INTERVAL?                | .....N                  |
| ALLOW PEDS IN DWELL INTERVAL?        | .....N                  |
| RE-TIME DWELL INTERVAL?              | .....N                  |
| OVERLAPS:                            | ABCDEFGHIJKLMNPO        |
| DWELL INT FLASH YELLOW               |                         |
| OMIT OVERLAPS:                       |                         |



**NOTES**

- RELAY K1 IS SHOWN IN THE ENERGIZED (PREEMPT NOT ACTIVE) NORMAL OPERATION STATE.
- RELAY K1 IS A DPDT WITH 120VAC COIL. POTTER & BRUMFIELD KRPI1AG WITH OCTAL BASE OR APPROVED EQUIVALENT.
- RELAY SSR1 IS A SPST (NORMALLY OPEN) SOLID STATE RELAY WITH AC INPUT AND AC (25 AMP) OUTPUT. CRYDOM TA1225 OR APPROVED EQUIVALENT.
- AC ISOLATOR CARD SHALL ACTIVATE PREEMPTION UPON REMOVAL OF AC+ FROM THE INPUT (AS SHOWN ABOVE).
- RESISTOR IS VALUED AT 2K OHM, 12 WATT. CLAROSTAT PART NO. VPR10F-2K OR APPROVED EQUIVALENT.
- RC NETWORK IS VALUED AT .1 MICROFARAD, 100 OHM.
- IF REPLACEMENT MOV'S ARE NEEDED, GE PART NO. V150LA20A MAY BE USED.
- PREEMPTION AND BLANKOUT SIGN CONTROL BOX IS A CONTROL TECHNOLOGIES PART NO. 2299-101 OR APPROVED EQUIVALENT.
- IMPORTANT!! A JUMPER MUST BE ADDED BETWEEN INPUT FILE TERMINALS J14-E AND J14-K IF NOT ALREADY PRESENT. ALSO, TERMINAL TB9-12 (ON INPUT PANEL) SHALL BE CONNECTED TO AC NEUTRAL (JUMPER MAY HAVE TO BE ADDED).

**FRONT VIEW**



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

**SIGNAL UPGRADE - FINAL DESIGN - SHEET 2 OF 2**

|  |   |                       |   |
|--|---|-----------------------|---|
|  | NC 274 (BESSEMER CITY ROAD)<br>AT<br>NC 275 (DALLAS-BESSEMER CITY ROAD)<br>AND SR 1312 (OATES ROAD) |                       | SEAL<br>NORTH CAROLINA<br>PROFESSIONAL ENGINEER<br>SEAL 022013<br>GEORGE C. BROWN |
|  | DIVISION 12 GASTON COUNTY GASTONIA  |                       |   |
|  | PLAN DATE: JULY 2004  | REVIEWED BY: T. J. J. |   |
|  | PREPARED BY: WILLIAM HAIRSTON   | REVIEWED BY:          |   |
| REVISIONS                              | INIT.   | DATE                  | SIGNATURE: <i>George C. Brown</i> 8/16/04<br>DATE                                 |
| 122 N. McDowell St., Raleigh, NC 27603 |   |                       | SIG. INVENTORY NO. 12-0012  |