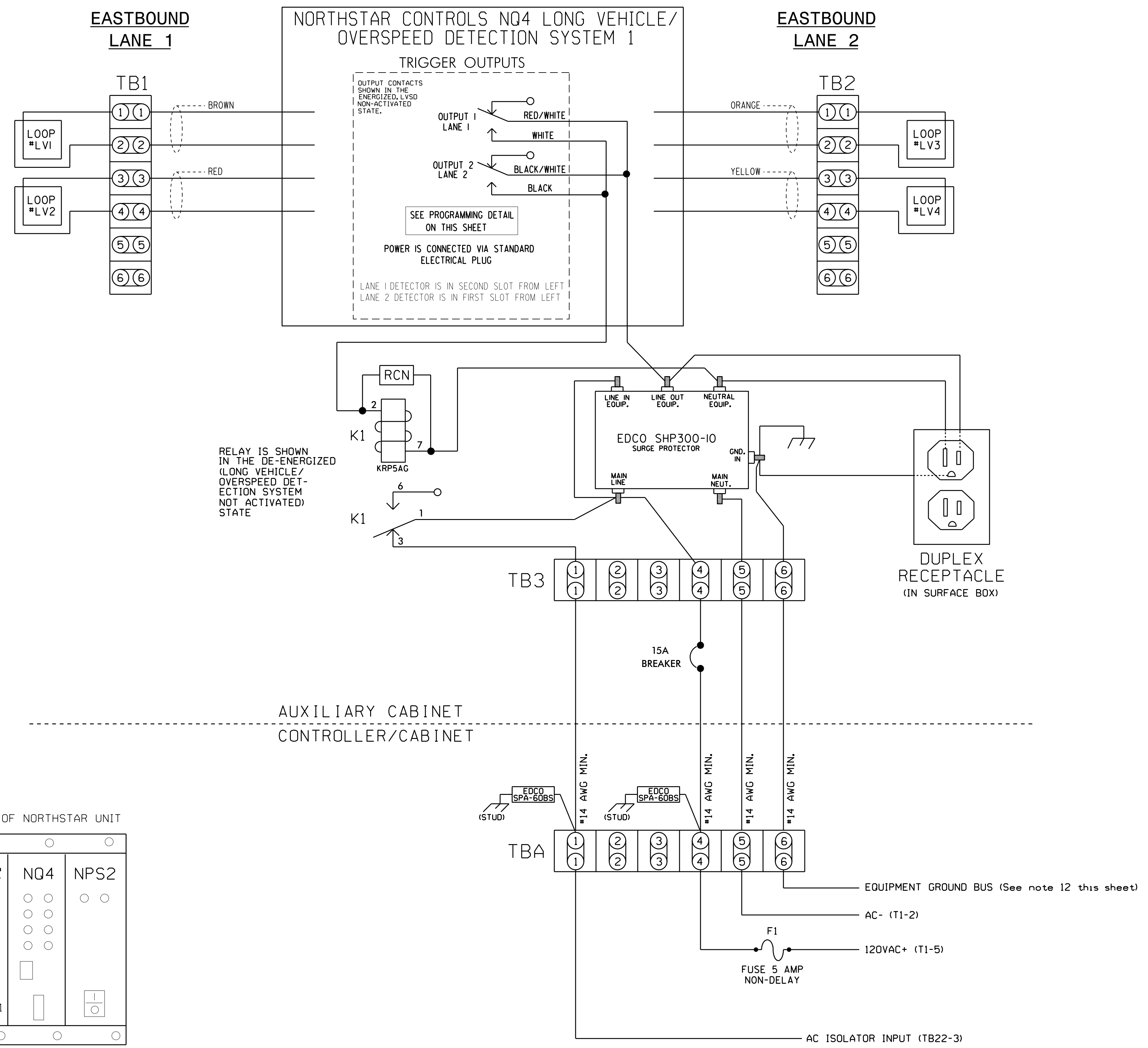


WIRING DETAIL FOR NORTHSTAR CONTROLS NQ4 LONG VEHICLE / OVERSPEED DETECTION SYSTEM NO. 1
(wire unit as shown below)

NOTES



- All loop lead-ins shall be twisted.
- Loop spacing is critical to the proper operation of this Overspeed Detection System. Make sure loop spacing is correctly programmed in NQ4 Unit.
- Insure that connectors on rear of NQ4 are seated securely.
- NQ4 Unit shall be located in an auxiliary cabinet adjacent to Speed Warning System loops.
- Unit power is connected by standard electrical plug.
- Terminal strips TB1, TB2, TB3, & TBA to be added by installer.
- Relay 'K1' is a SPDT with an 120VAC coil. Potter & Brumfield no. KRP5AGAG. Dot Material no. 625028600.
- The RC Network across the coil of 'K1' is a .1 micro farad, 100 ohm. Dot Material no. 106018075. P&B no. 104M060C100
- EDCO SPA-60BS is a surge protector for 120VAC interconnect circuits. Dot Material no. 625022076.
- EDCO SHP300-10 is an AC service surge protector. Dot Material no. 625022075.
- Do not install ground rods at auxiliary cabinet.
- Install equipment ground from controller cabinet to auxiliary cabinet if not already present.
- Install disconnect if there is no disconnect present at auxiliary cabinet.
- IMPORTANT! A jumper must be installed between input file terminals I9-E and I9-K if not already present.
- IMPORTANT! For proper operation of the Long Vehicle Detection Unit, tie TB24-4 to AC neutral.
- IMPORTANT! Make sure both channels of AC Isolator card inserted at input file position I9 are set for inverted operation.

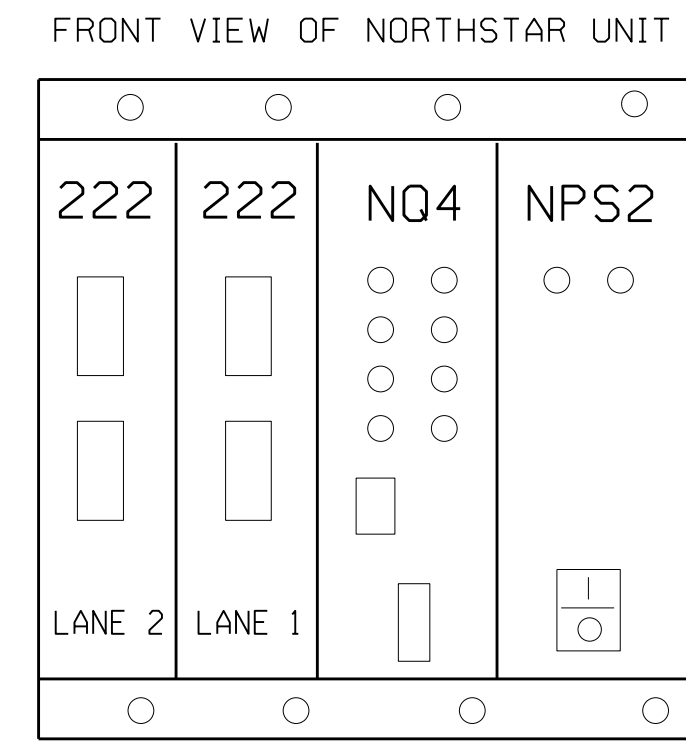
**NORTHSTAR CONTROLS MODEL NQ4
PROGRAMMING DETAIL**
(program unit as shown)

NOTE: UNIT MUST BE PROGRAMMED USING PC AND HYPERTERMINAL PROGRAM. FOR CONNECTION TO HYPERTERMINAL REFER TO NQ4 OPERATION MANUAL.

PROGRAM NQ4 BY TYPING THE FOLLOWING COMMANDS

- SET SPEED=60
- SET LENGTH=22'
- SET ALARMTIME=12
- SET SEPARATION=27' (LEADING EDGE TO LEADING EDGE)
(THIS VALUE MAY VARY, PROGRAM ACTUAL MEASURED SEPARATION)
- SET LOOP LENGTH=6'
(THIS VALUE MAY VARY, PROGRAM ACTUAL MEASURED LOOP LENGTH)
- SAVE

NOTE
PROGRAMMING APPLIES TO LANE 1



THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 04-1029T
DESIGNED: June 2019
SEALED: 6-19-19
REVISED: N/A

Electrical Detail - Temp. - Phase 2 - Sheet 3 of 5

Prepared In the Offices of:
G.L. Transportation, Mobility and Safety Division
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
Signal Management Section
750 N. Greenfield Pkwy, Garner, NC 27529

US 70
at
SR 1913 (Wilson's Mills Road)

Division 4 Johnston County W. of Selma

PLAN DATE: June 2019 REVIEWED BY:
PREPARED BY: James Peterson REVIEWED BY:

REVISIONS	INIT.	DATE

DocuSigned by:
Ryan W. Hough
6/20/2019
40332FAD2856C3
DATE

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
SEAL 036833
RYAN W. HOUGH

SIG. INVENTORY NO. 04-1029T

19-jun-2019 14:24
W:\1029T\Signal\04-1029T-001.dgn
J.Peterson