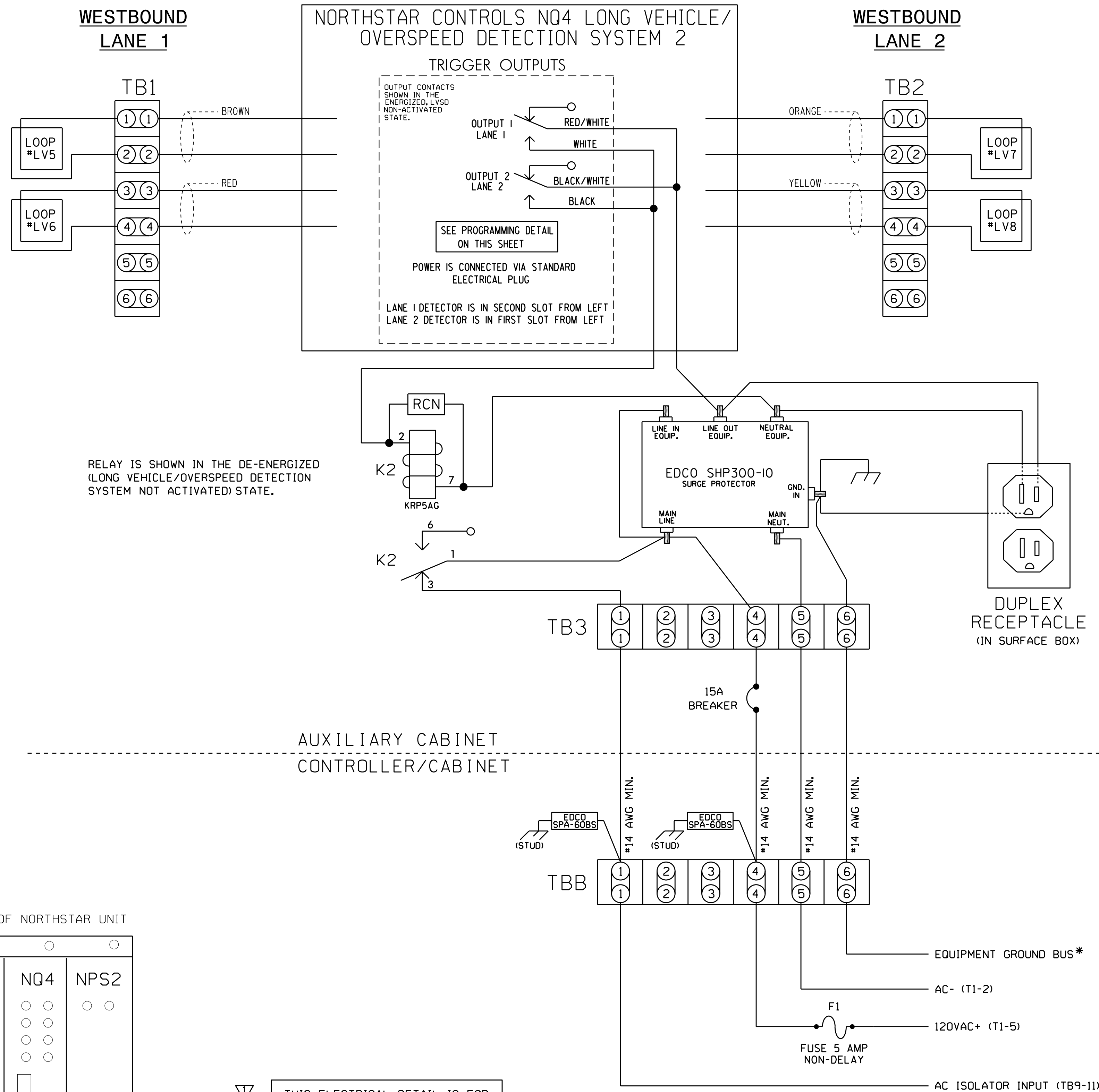


WIRING DETAIL FOR NORTHSTAR CONTROLS NQ4 LONG VEHICLE / OVERSPEED DETECTION SYSTEM NO. 2

(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, & TBB to be added by installer.
  - Relay 'K2' is a SPDT with an 120VAC coil. Potter & Brumfield no. KRP5AGAG, Dot Material no. 625028600.
  - RC network across the coil of K2 is Dot no. 106018075.
  - 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 disconnect if there is no disconnect present at auxiliary cabinet.
  - \*Install equipment ground from controller cabinet to auxiliary cabinet if not already present.



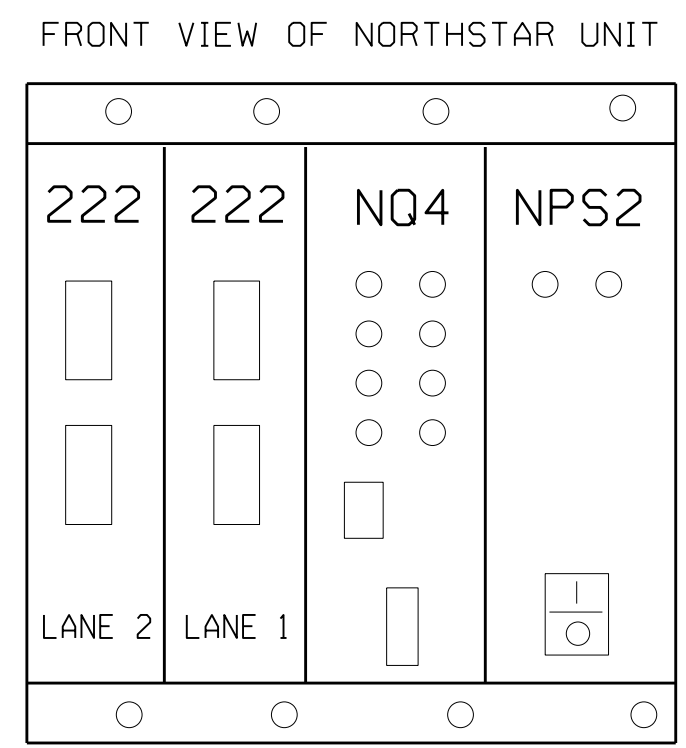
**NORTHSTAR CONTROLS MODEL NQ4  
PROGRAMMING DETAIL**  
(program unit as shown)

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=55
- SET LENGTH=22'
- SET ALARMTIME=12
- SET SEPARATION=16' (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 BOTH LANE 1 AND LANE 2



THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 03-0342  
DESIGNED: December 2012  
SEALED: 12/6/12  
REVISED: 7/16/2015

Signal Upgrade - Sheet 6 of 10

<p>Prepared In the Offices of:</p> <p>750 N. Greenfield Pkwy, Garner, NC 27529</p>	<p>US 17 at NC 904 (Longwood Road/ Seaside Road)</p> <p>Division 3 Brunswick County Grissetown</p> <p>PLAN DATE: December 2012 REVIEWED BY: JTR</p> <p>PREPARED BY: S. Armstrong REVIEWED BY:</p> <p>REVISIONS</p> <p>Revised from stretch to Volume Density. (WSA)</p> <p>DATE: 7/20/2015</p>	<p>SEAL</p> <p>DocuSigned by: John T. Rowe, Jr. 12/10/2012</p> <p>SIG. INVENTORY NO. 03-0342</p>
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