

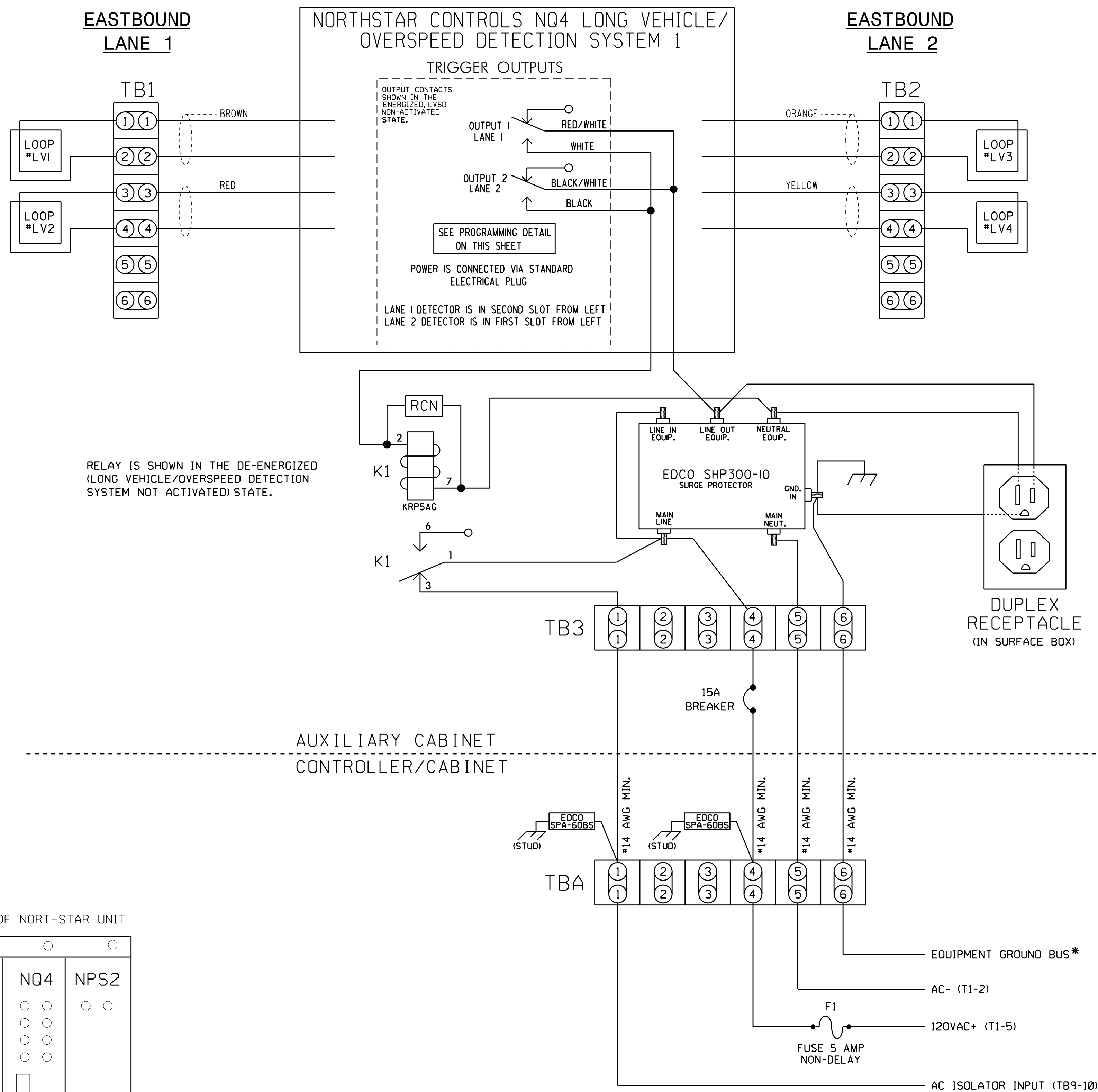
WIRING DETAIL FOR NORTHSTAR CONTROLS NQ4 LONG VEHICLE / OVERSPEED DETECTION SYSTEM NO. 1

(wire unit as shown below)

NOTES

1. All loop lead-ins shall be twisted.
2. Loop spacing is critical to the proper operation of this Overspeed Detection System. Make sure loop spacing is correctly programmed in NQ4 Unit.
3. Insure that connectors on rear of NQ4 are seated securely.
4. NQ4 Unit shall be located in an auxiliary cabinet adjacent to Speed Warning System loops.
5. Unit power is connected by standard electrical plug.
6. Terminal strips TB1, TB2, TB3, & TBA to be added by installer.
7. Relay 'K1' is a SPDT with an 120VAC coil. Potter & Brumfield no. KRP5AGAG, Dot Material no. 625028600.
8. RC network across the coil of K1 is Dot no. 106018075.
9. EDCO SPA-60BS is a surge protector for 120VAC interconnect circuits. Dot Material no. 625022076.
10. EDCO SHP300-10 is an AC service surge protector. Dot Material no. 625022075.

11. IMPORTANT! A jumper must be installed between input file terminals J14-E and J14-K if not already present.
12. IMPORTANT! For proper operation of the Long Vehicle Detection Unit, tie TB9-12 to AC neutral.
13. IMPORTANT! Make sure both channels of AC isolator card inserted at input file position J14 are set for inverted operation.
14. Do not install ground rods at auxiliary cabinet.
15. Install disconnect if there is no disconnect present at auxiliary cabinet.
- \*16. 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

1. SET SPEED=55
2. SET LENGTH=22'
3. SET ALARMTIME=12
4. SET SEPARATION=16' (LEADING EDGE TO LEADING EDGE) (THIS VALUE MAY VARY, PROGRAM ACTUAL MEASURED SEPARATION)
5. SET LOOP LENGTH=6' (THIS VALUE MAY VARY, PROGRAM ACTUAL MEASURED LOOP LENGTH)
6. 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 5 of 10

ELECTRICAL AND PROGRAMMING DETAILS FOR: Prepared in the Offices of:  TRANSPORTATION MOBILITY AND SAFETY SOLUTIONS, INC. 750 N. Greenfield Pkwy, Garner, NC 27529	US 17 at NC 904 (Longwood Road/ Seaside Road)		SEAL NORTH CAROLINA PROFESSIONAL ENGINEER JOHN T. ROWE, JR. SEAL 008453
	Division 3 Brunswick County Grissettown	PLAN DATE: December 2012 PREPARED BY: S. Armstrong REVIEWED BY: JTR	
REVISIONS Revised from stretch to Volume Density. (WSA)		DATE: 7/20/2015 BY: JTR	DocuSigned by: John T. Rowe, Jr. 12/10/2012

SIG. INVENTORY NO. 03-0342

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sarmstrong