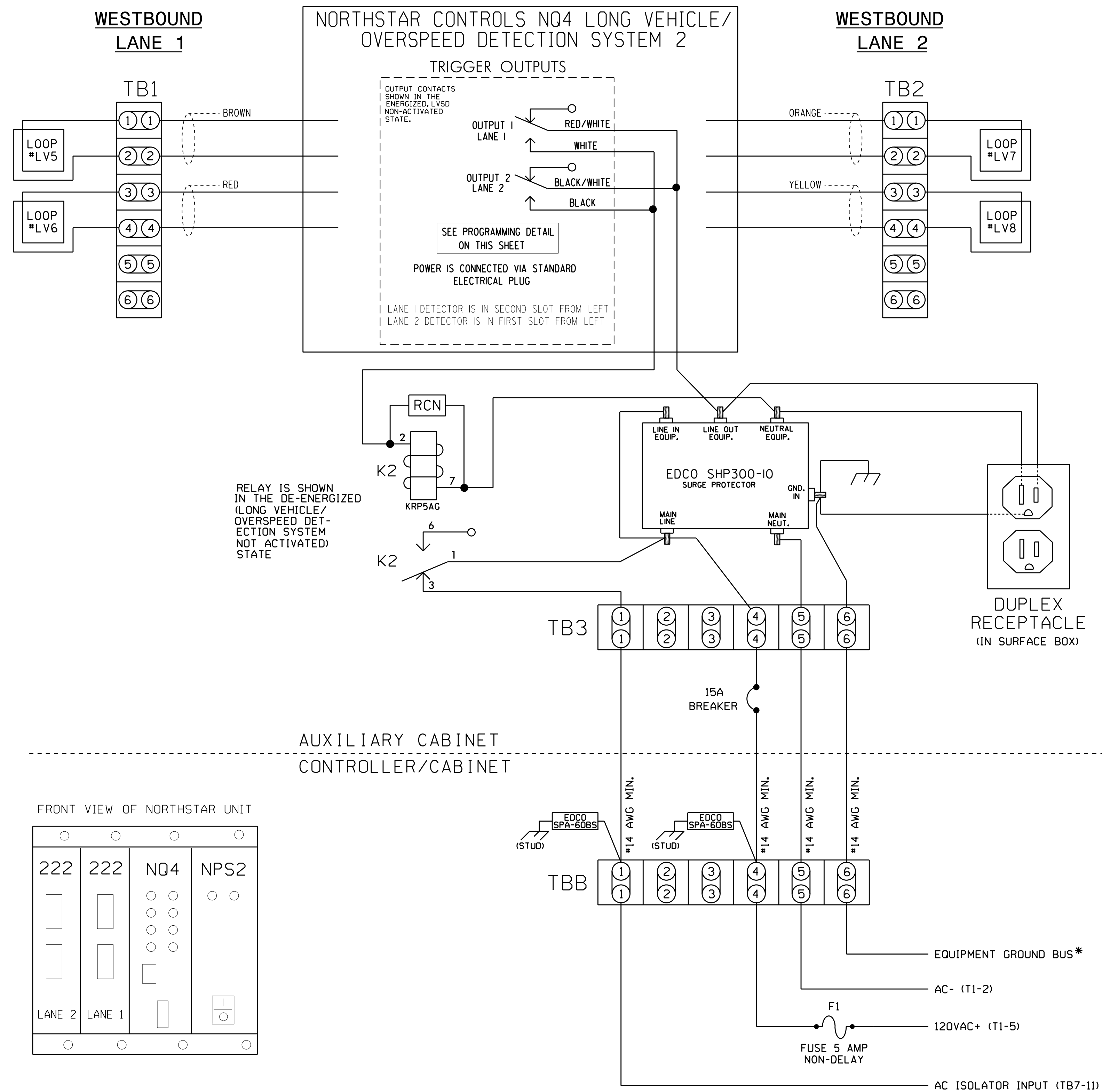


WIRING DETAIL FOR NORTHSTAR CONTROLS NQ4 LONG VEHICLE / OVERSPEED DETECTION SYSTEM NO. 2
(wire unit as shown below)

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, & TBB 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 K2 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. Do not install ground rods at auxiliary cabinet.
 12. Install disconnect if there is no disconnect present at auxiliary cabinet.
 - *13. 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.

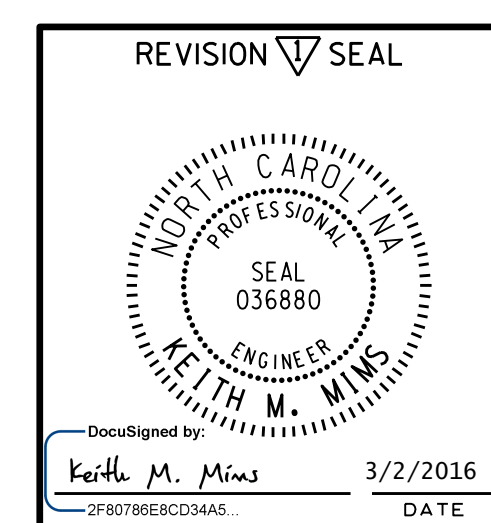
PROGRAM NQ4 BY TYPING THE FOLLOWING COMMANDS

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

03-MAR-2016 06:17 S:\ITS\SS\WITS\SIGNAL\WORKING\0301170_sml\el-xxx.dgn sarmsfrcng

THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 03-0170
 DESIGNED: January 2016
 SEALED: 2/9/2016
 REVISED: N/A



Prepared in the Offices of:
 Transportation Mobility and Safety Solutions
 CONSULTING ENGINEERS
 750 N. Greenfield Pkwy, Garner, NC 27529

US 74-76 (Andrew Jackson Hwy.)
 at
 NC 87 (Maco Road)/
 SR 1419 (Northwest Road)

Division 3	Brunswick County	Maco
PLAN DATE: April 2007	REVIEWED BY: T. Joyce	
PREPARED BY: C. Strickland	REVIEWED BY:	

REVISIONS

NO.	DATE	DESCRIPTION	BY
1	3/2/2016	Changed head 32 from 3-section to 3-section, deleted loop 36, revised stretch times and monitor jumpers, added a note. (WSA) (DTJ)	KMM

DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED

SEAL

Not a certified document as to the Original Document but Only as to the Revisions - This document originally issued and sealed by George C. Brown, #022013, on 4/19/07. This document is only certified as to the revisions.

SIGNATURE	DATE

SIG. INVENTORY NO. 03-0170