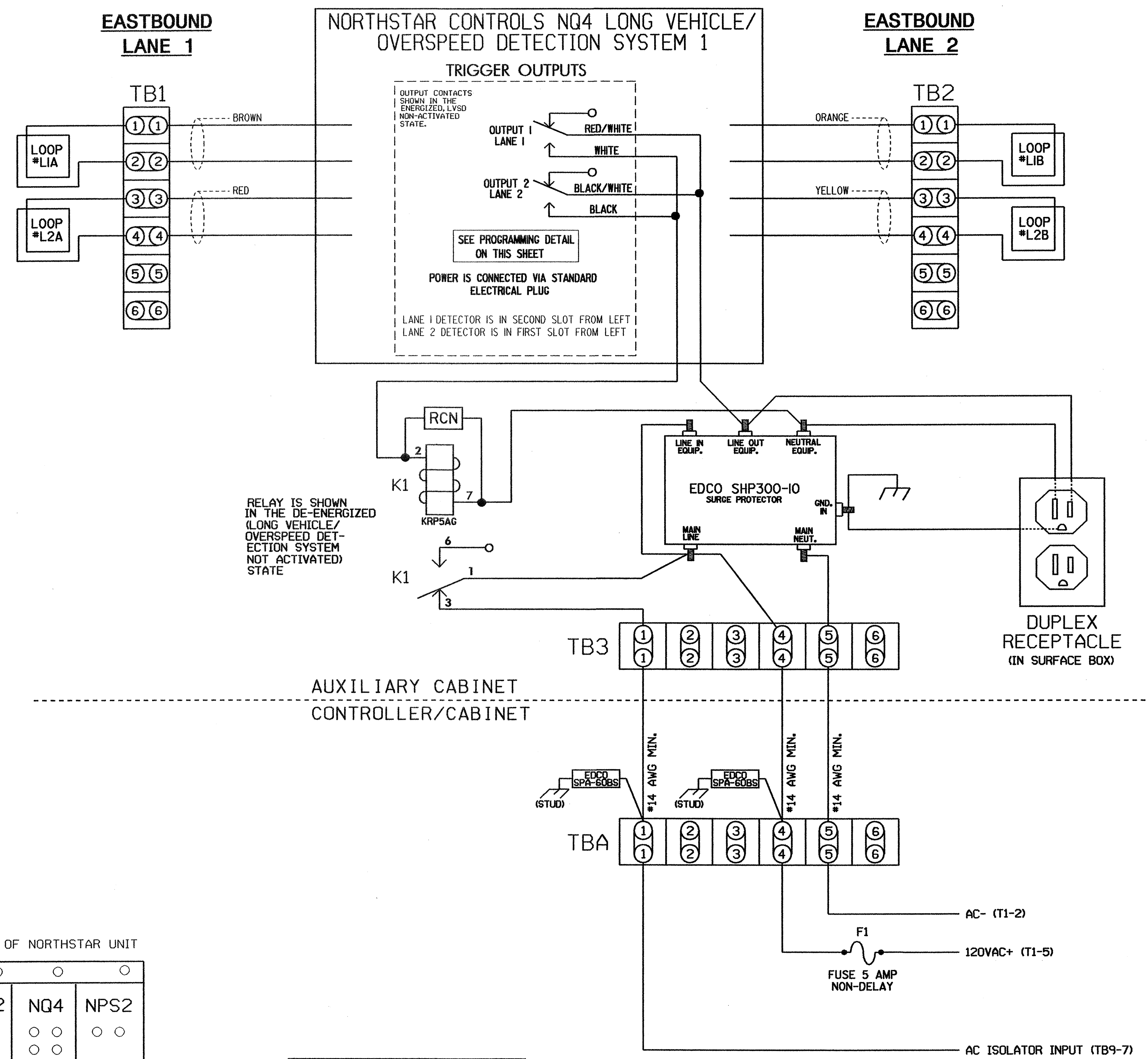


WIRING DETAIL FOR NORTHSTAR CONTROLS NQ4 LONG VEHICLE / OVERSPEED DETECTION SYSTEM NO. 1
(wire unit as shown below)



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. KRP5AG, DOT MATERIAL NO. 625028600.
8. EDCO SPA-60BS IS A SURGE PROTECTOR FOR 120VAC INTERCONNECT CIRCUITS. DOT MATERIAL NO. 625022076.
9. EDCO SHP300-10 IS AN AC SERVICE SURGE PROTECTOR. DOT MATERIAL NO. 625022075.
10. IMPORTANT! A JUMPER MUST BE INSTALLED BETWEEN INPUT FILE TERMINALS J13-E AND J13-K IF NOT ALREADY PRESENT.
11. IMPORTANT! FOR PROPER OPERATION OF THE LONG VEHICLE DETECTION UNIT, REMOVE SURGE PROTECTION FROM TERMINALS TB9-7, TB9-8 AND TB9-9. TIE TB9-9 TO AC NEUTRAL.
12. IMPORTANT! MAKE SURE AC ISOLATOR CARD INSERTED AT INPUT FILE POSITION J13U IS SET FOR INVERTED OPERATION.

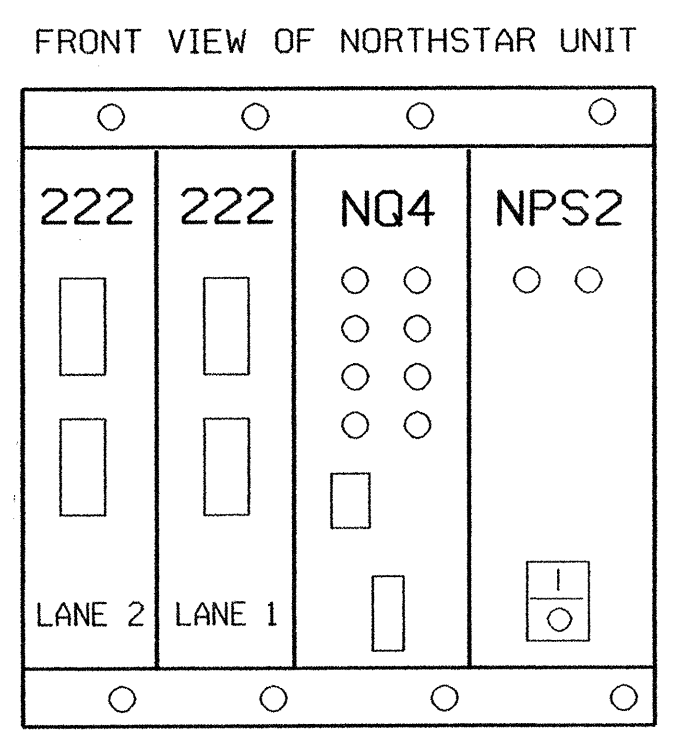
NORTHSTAR CONTROLS MODEL NQ4
PROGRAMMING DETAIL
(program unit as shown)

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

1. SET SPEED=55
2. SET LENGTH=22'
3. SET ALARMTIME=12
4. SET SEPARATION=28' (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: 09-0374
DESIGNED: JULY 2004
SEALED: 8-11-04
REVISED: N/A

SIGNAL INSTALLATION - FINAL **SHEET 3 of 3**

ELECTRICAL AND PROGRAMMING DETAILS FOR: 	US 70 (STATESVILLE BOULEVARD) AT NC 801/SR 1827 (HOECHST CELANESE ROAD)		SEAL
	DIVISION 9 PLAN DATE: 8-6-04 PREPARED BY: D.H. SPAULDING	ROWAN CO. W. OF SALISBURY REVIEWED BY: D.T. JOYCE	DATE: 8/27/04 SIGNATURE: <i>D.H. Spaulding</i>

25-AUG-2004 14:18 U:\n\proj\ess\0374_2004xx.dgn