SERVICE MANUAL

TRUCK SERVICE MANUAL

BE, CE Bus Starting March, 2007 — ELECTRICAL CIRCUIT DIAGRAMS (Chassis Only)

Model: BE 200

Start Date: 03/01/2007

Model: CE Bus

Start Date: 03/01/2007

Model: CE 200

Start Date: 03/01/2007

Model: CE 300

Start Date: 03/01/2007

S08329

05/16/2008

Table of Contents

SAFETY INFORMATION	
1 BE, CE BUS CHASSIS CIRCUIT DIAGRAMS	

SAFETY INFORMATION

IMPORTANT – Read the following before starting the service procedure.

The information contained in this International Service Manual Section was current at the time of printing and is subject to change without notice or liability.

You must follow your company safety procedures when you service or repair equipment. Be sure to understand all of the procedures and instructions before you begin work on the unit.

International uses the following types of notations to give warning of possible safety problems and to give information that will prevent damage to the equipment being serviced or repaired.

WARNING – A warning indicates procedures that must be followed exactly. Personal injury or possible death can occur if the procedure is not followed.

CAUTION – A caution indicates procedures that must be followed exactly. If the procedure is not followed, damage to equipment or components can occur.

NOTE – A note indicates an operation, procedure or instruction that is important for correct service.

Some procedures require the use of special tools for safe and correct service. Failure to use these special tools when required can cause injury to service personnel or damage to vehicle components.

This service manual section is intended for use by professional technicians, NOT a "do-it-yourselfer." It is written to inform these technicians of conditions that may occur on some vehicles, or to provide information that could assist in the proper service of a vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do a job properly and safely. If a condition is described, DO NOT assume that the service section applies to your vehicle. See your International Truck Dealer for information on whether this service section applies to your vehicle.

Table of Contents

1.	TABLE OF CONTENTS (CHAPTER 1)	7
2.	INSTRUCTIONS AND CHARTS (CHAPTER 2)	7
	2.1. ABBREVIATIONS, P. 1.	
	2.2. ACRONYMS, P. 2	
	2.3. CIRCUIT DIAGRAM INSTRUCTIONS, P. 3.	
	2.4. CIRCUIT NUMBER IDENTIFICATION AND COLOR, P. 4	
	2.5. CIRCUIT NUMBER IDENTIFICATION AND COLOR, P. 5	
	2.6. CIRCUIT NUMBER IDENTIFICATION AND COLOR, P. 6	
	2.7. LAMP BULB CHART, P. 7.	
	2.8. RELAY FUNCTION AND WIRING GUIDE, P. 8.	
	2.9. SCHEMATIC SYMBOL CHART, P. 9	
	2.10. SCHEMATIC SYMBOL CHART, P. 10.	
	2.11. SCHEMATIC SYMBOL CHART, P. 11	
	2.12. SCHEMATIC SYMBOL CHART, P. 12.	
	Z.I.Z. GOILMAIG GIMBOL GIAKI, I. IZ.	0
3	12 VOLT POWER DISTRIBUTION AND DATA LINK (CHAPTER 3)	19
٥.	3.1. BATTERY FEED, P. 1	19
	3.2. ACCESSORY FEED, P. 2.	
	3.3. IGNITION FEED, P. 3	
	3.4. IGNITION FEED, P. 4.	
	3.5. GROUND — PLATFORM, P. 5	
	3.6. GROUND — PLATFORM, P. 6	
	3.7. GROUND — CHASSIS, P. 7	
	3.8. GROUND — ENGINE, P. 8.	
	3.9. J1939 DATA LINK — PLATFORM AND DIAGNOSTIC CONNECTOR, P. 9	
	3.10. J1939 DATA LINK — ENGINE, P. 10	
	3.11. J1939 DATA LINK — CHASSIS, P. 11	29
	3.12. J1708 DATALINK BASIC, P. 12	
	3.13. ZERO VOLT REFERENCE, P. 13	31
	3.14. J1939 DATA LINK COMPLETE — PLATFORM AND DIAGNOSTIC CONNECTOR, P. 14	32
	3.15. J1939 DATA LINK BASIC — PLATFORM AND DIAGNOSTIC CONNECTOR W/ LCT, P. 15	33
	3.16. J1939 DATA LINK BASIC — PLATFORM AND DIAGNOSTIC CONNECTOR W/ WTEC, P.	
	16	
	3.17. J1708 DATA LINK COMPLETE, P. 17	35
_		
4.	CHARGING AND CRANKING SYSTEM (CHAPTER 4)	36
	4.1. CHARGING AND CRANKING — I6 / V8 ENGINE, P. 1	36
5	CAB ACCESSORIES (CHAPTER 5)	37
٦.	5.1. HORN AND STEERING WHEEL SWITCHES, P. 1	<i>37</i> 37
	5.2. SWITCH PACK, P. 2	
	5.3. WINDSHIELD WIPER AND WASHER, HIGH BEAM, FLASH TO PASS AND TURN SIGNAL	50
	SYSTEMS, P. 3	
	5.4. WINDSHIELD WIPER AND WASHER, HIGH BEAM, FLASH TO PASS AND TURN SIGNAL	
	SYSTEMS, P. 4	
	5.5. DRIVER'S AIR CONDITIONING (OPTIONAL), P. 5	41

	5.6. COMPASS AND TEMPERATURE DISPLAY, P. 6	
	5.7. LIGHTED STEERING WHEEL SWITCHES, P. 7	
	5.8. AC COMPRESSOR CONTROL, P. 8	
	5.9. TELEMATICS SYSTEM, P. 9	45
6.	ENGINE ELECTRONICS (CHAPTER 6)	
	6.1. ELECTRONIC ENGINE CONTROLS — I6 ENGINE, P. 1	46
	6.2. ELECTRONIC ENGINE CONTROLS — I6 ENGINE, P. 2	47
	6.3. ELECTRONIC ENGINE CONTROLS — I6 ENGINE, P. 3	
	6.4. FAN AND SHUTTER WIRING (OPTIONAL), P. 4	49
	6.5. ELECTRONIC ENGINE CONTROLS — V8 ENGINE, P. 5	50
	6.6. ELECTRONIC ENGINE CONTROLS — V8 ENGINE, P. 6	51
	6.7. ELECTRONIC ENGINE CONTROLS — V8 ENGINE, P. 7	
7.	GAUGES AND WARNING LIGHTS (CHAPTER 7)	53
	7.1. IP GAUGES, P. 1	53
	7.2. WARNING LIGHTS, P. 2	54
	7.3. BLANK PAGE, P. 3	55
	7.4. ENGINE OIL PRESSURE AND TEMPERATURE, SPEEDOMETER, TACHOMETER,	
	VOLTMETER AND WATER TEMPERATURE GAUGE CIRCUITS, P. 4	56
	7.5. INSTRUMENT GAUGE CLUSTER, P. 5	
	7.6. AMMETER (OPTIONAL), P. 6	
	7.7. COOLANT TANK LEVEL, P. 7	
	7.8. FUEL GAUGES, P. 8	
	7.9. PARK BRAKE, P. 9	
	7.10. AIR PRESSURE INPUTS, P. 10	
	7.11. CHANGE TRANSMISSION OIL FILTER LIGHT AND EXHAUST AFTERTREATMENT	
	INDICATORS P 11	63
	INDICATORS, P. 11	63
	7.12. ESPAR COOLANT HEATER WITH RSM TANK, P. 12	64
	INDICATORS, P. 11	64
8.	7.12. ESPAR COOLANT HEATER WITH RSM TANK, P. 12	64 65
8.	7.12. ESPAR COOLANT HEATER WITH RSM TANK, P. 12	64 65 66
8.	7.12. ESPAR COOLANT HEATER WITH RSM TANK, P. 12	64 65 66
8.	7.12. ESPAR COOLANT HEATER WITH RSM TANK, P. 12	64 65 66 67
8.	7.12. ESPAR COOLANT HEATER WITH RSM TANK, P. 12. 7.13. ESPAR COOLANT HEATER WITH AF FUEL TANK, P. 13. CHASSIS ACCESSORIES (CHAPTER 8). 8.1. AIR DRYER AND DRAIN VALVE, P. 1. 8.2. FUEL HEATER SYSTEM, P. 2. 8.3. ABS — HYDRAULIC 16, P. 3.	64 65 66 67
8.	7.12. ESPAR COOLANT HEATER WITH RSM TANK, P. 12. 7.13. ESPAR COOLANT HEATER WITH AF FUEL TANK, P. 13. CHASSIS ACCESSORIES (CHAPTER 8). 8.1. AIR DRYER AND DRAIN VALVE, P. 1. 8.2. FUEL HEATER SYSTEM, P. 2. 8.3. ABS — HYDRAULIC I6, P. 3. 8.4. ABS — HYDRAULIC I6, P. 4.	64 65 66 67 68
8.	7.12. ESPAR COOLANT HEATER WITH RSM TANK, P. 12. 7.13. ESPAR COOLANT HEATER WITH AF FUEL TANK, P. 13. CHASSIS ACCESSORIES (CHAPTER 8). 8.1. AIR DRYER AND DRAIN VALVE, P. 1. 8.2. FUEL HEATER SYSTEM, P. 2. 8.3. ABS — HYDRAULIC I6, P. 3. 8.4. ABS — HYDRAULIC I6, P. 4. 8.5. AIR SOLENOID MODULE (OPTIONAL), P. 5.	64 65 66 67 68 69
8.	7.12. ESPAR COOLANT HEATER WITH RSM TANK, P. 12. 7.13. ESPAR COOLANT HEATER WITH AF FUEL TANK, P. 13. CHASSIS ACCESSORIES (CHAPTER 8). 8.1. AIR DRYER AND DRAIN VALVE, P. 1. 8.2. FUEL HEATER SYSTEM, P. 2. 8.3. ABS — HYDRAULIC 16, P. 3. 8.4. ABS — HYDRAULIC 16, P. 4. 8.5. AIR SOLENOID MODULE (OPTIONAL), P. 5. 8.6. BENDIX AIR ABS, P. 6.	64 65 66 67 68 69
8.	7.12. ESPAR COOLANT HEATER WITH RSM TANK, P. 12. 7.13. ESPAR COOLANT HEATER WITH AF FUEL TANK, P. 13. CHASSIS ACCESSORIES (CHAPTER 8). 8.1. AIR DRYER AND DRAIN VALVE, P. 1. 8.2. FUEL HEATER SYSTEM, P. 2. 8.3. ABS — HYDRAULIC 16, P. 3. 8.4. ABS — HYDRAULIC 16, P. 4. 8.5. AIR SOLENOID MODULE (OPTIONAL), P. 5. 8.6. BENDIX AIR ABS, P. 6. 8.7. BENDIX AIR ABS6, P. 7.	64 65 66 68 69 70
8.	7.12. ESPAR COOLANT HEATER WITH RSM TANK, P. 12. 7.13. ESPAR COOLANT HEATER WITH AF FUEL TANK, P. 13. CHASSIS ACCESSORIES (CHAPTER 8). 8.1. AIR DRYER AND DRAIN VALVE, P. 1. 8.2. FUEL HEATER SYSTEM, P. 2. 8.3. ABS — HYDRAULIC I6, P. 3. 8.4. ABS — HYDRAULIC I6, P. 4. 8.5. AIR SOLENOID MODULE (OPTIONAL), P. 5. 8.6. BENDIX AIR ABS, P. 6. 8.7. BENDIX AIR ABS6, P. 7. 8.8. BENDIX AIR ABS6, P. 8.	64 65 66 67 69 71 72
8.	7.12. ESPAR COOLANT HEATER WITH RSM TANK, P. 12. 7.13. ESPAR COOLANT HEATER WITH AF FUEL TANK, P. 13. CHASSIS ACCESSORIES (CHAPTER 8). 8.1. AIR DRYER AND DRAIN VALVE, P. 1. 8.2. FUEL HEATER SYSTEM, P. 2. 8.3. ABS — HYDRAULIC I6, P. 3. 8.4. ABS — HYDRAULIC I6, P. 4. 8.5. AIR SOLENOID MODULE (OPTIONAL), P. 5. 8.6. BENDIX AIR ABS, P. 6. 8.7. BENDIX AIR ABS6, P. 7. 8.8. BENDIX AIR ABS6, P. 8. 8.9. ALLISON LCT TRANSMISSION, P. 9.	64 65 66 67 70 71 72
8.	7.12. ESPAR COOLANT HEATER WITH RSM TANK, P. 12. 7.13. ESPAR COOLANT HEATER WITH AF FUEL TANK, P. 13. CHASSIS ACCESSORIES (CHAPTER 8). 8.1. AIR DRYER AND DRAIN VALVE, P. 1. 8.2. FUEL HEATER SYSTEM, P. 2. 8.3. ABS — HYDRAULIC I6, P. 3. 8.4. ABS — HYDRAULIC I6, P. 4. 8.5. AIR SOLENOID MODULE (OPTIONAL), P. 5. 8.6. BENDIX AIR ABS, P. 6. 8.7. BENDIX AIR ABS6, P. 7. 8.8. BENDIX AIR ABS6, P. 8. 8.9. ALLISON LCT TRANSMISSION, P. 9.	64 65 66 67 70 71 72 73
8.	7.12. ESPAR COOLANT HEATER WITH RSM TANK, P. 12. 7.13. ESPAR COOLANT HEATER WITH AF FUEL TANK, P. 13. CHASSIS ACCESSORIES (CHAPTER 8). 8.1. AIR DRYER AND DRAIN VALVE, P. 1. 8.2. FUEL HEATER SYSTEM, P. 2. 8.3. ABS — HYDRAULIC I6, P. 3. 8.4. ABS — HYDRAULIC I6, P. 4. 8.5. AIR SOLENOID MODULE (OPTIONAL), P. 5. 8.6. BENDIX AIR ABS, P. 6. 8.7. BENDIX AIR ABS6, P. 7. 8.8. BENDIX AIR ABS6, P. 8. 8.9. ALLISON LCT TRANSMISSION, P. 9. 8.10. ALLISON LCT TRANSMISSION, P. 10. 8.11. ALLISON LCT TRANSMISSION, P. 11.	6566666870717374
8.	7.12. ESPAR COOLANT HEATER WITH RSM TANK, P. 12. 7.13. ESPAR COOLANT HEATER WITH AF FUEL TANK, P. 13. CHASSIS ACCESSORIES (CHAPTER 8). 8.1. AIR DRYER AND DRAIN VALVE, P. 1. 8.2. FUEL HEATER SYSTEM, P. 2. 8.3. ABS — HYDRAULIC 16, P. 3. 8.4. ABS — HYDRAULIC 16, P. 4. 8.5. AIR SOLENOID MODULE (OPTIONAL), P. 5. 8.6. BENDIX AIR ABS, P. 6. 8.7. BENDIX AIR ABS6, P. 7. 8.8. BENDIX AIR ABS6, P. 8. 8.9. ALLISON LCT TRANSMISSION, P. 9. 8.10. ALLISON LCT TRANSMISSION, P. 10. 8.11. ALLISON LCT TRANSMISSION, P. 11. 8.12. ALLISON WTEC MD TRANSMISSION, P. 12.	64 65 66 68 70 71 74 74 75
8.	7.12. ESPAR COOLANT HEATER WITH RSM TANK, P. 12. 7.13. ESPAR COOLANT HEATER WITH AF FUEL TANK, P. 13. CHASSIS ACCESSORIES (CHAPTER 8). 8.1. AIR DRYER AND DRAIN VALVE, P. 1. 8.2. FUEL HEATER SYSTEM, P. 2. 8.3. ABS — HYDRAULIC 16, P. 3. 8.4. ABS — HYDRAULIC 16, P. 4. 8.5. AIR SOLENOID MODULE (OPTIONAL), P. 5. 8.6. BENDIX AIR ABS, P. 6. 8.7. BENDIX AIR ABS6, P. 7. 8.8. BENDIX AIR ABS6, P. 8. 8.9. ALLISON LCT TRANSMISSION, P. 9. 8.10. ALLISON LCT TRANSMISSION, P. 10. 8.11. ALLISON UTEC MD TRANSMISSION, P. 12. 8.13. ALLISON WTEC MD TRANSMISSION, P. 13.	64 65 66 68 69 71 72 74 75 76
8.	7.12. ESPAR COOLANT HEATER WITH RSM TANK, P. 12. 7.13. ESPAR COOLANT HEATER WITH AF FUEL TANK, P. 13. CHASSIS ACCESSORIES (CHAPTER 8). 8.1. AIR DRYER AND DRAIN VALVE, P. 1. 8.2. FUEL HEATER SYSTEM, P. 2. 8.3. ABS — HYDRAULIC I6, P. 3. 8.4. ABS — HYDRAULIC I6, P. 4. 8.5. AIR SOLENOID MODULE (OPTIONAL), P. 5. 8.6. BENDIX AIR ABS, P. 6. 8.7. BENDIX AIR ABS6, P. 7. 8.8. BENDIX AIR ABS6, P. 8. 8.9. ALLISON LCT TRANSMISSION, P. 9. 8.10. ALLISON LCT TRANSMISSION, P. 10. 8.11. ALLISON WTEC MD TRANSMISSION, P. 12. 8.13. ALLISON WTEC MD TRANSMISSION, P. 13. 8.14. ALLISON WTEC MD TRANSMISSION, P. 14.	64 65 66 69 71 73 74 75 76
8.	7.12. ESPAR COOLANT HEATER WITH RSM TANK, P. 12. 7.13. ESPAR COOLANT HEATER WITH AF FUEL TANK, P. 13. CHASSIS ACCESSORIES (CHAPTER 8). 8.1. AIR DRYER AND DRAIN VALVE, P. 1. 8.2. FUEL HEATER SYSTEM, P. 2. 8.3. ABS — HYDRAULIC I6, P. 3. 8.4. ABS — HYDRAULIC I6, P. 4. 8.5. AIR SOLENOID MODULE (OPTIONAL), P. 5. 8.6. BENDIX AIR ABS, P. 6. 8.7. BENDIX AIR ABS6, P. 7. 8.8. BENDIX AIR ABS6, P. 8. 8.9. ALLISON LCT TRANSMISSION, P. 9. 8.10. ALLISON LCT TRANSMISSION, P. 10. 8.11. ALLISON WITEC MD TRANSMISSION, P. 12. 8.13. ALLISON WITEC MD TRANSMISSION, P. 13. 8.14. ALLISON WITEC MD TRANSMISSION, P. 14. 8.15. CROSSING GATE, P. 15.	64 65 66 69 71 73 74 75 76 79
8.	7.12. ESPAR COOLANT HEATER WITH RSM TANK, P. 12. 7.13. ESPAR COOLANT HEATER WITH AF FUEL TANK, P. 13. CHASSIS ACCESSORIES (CHAPTER 8). 8.1. AIR DRYER AND DRAIN VALVE, P. 1. 8.2. FUEL HEATER SYSTEM, P. 2. 8.3. ABS — HYDRAULIC I6, P. 3. 8.4. ABS — HYDRAULIC I6, P. 4. 8.5. AIR SOLENOID MODULE (OPTIONAL), P. 5. 8.6. BENDIX AIR ABS, P. 6. 8.7. BENDIX AIR ABS6, P. 7. 8.8. BENDIX AIR ABS6, P. 8. 8.9. ALLISON LCT TRANSMISSION, P. 9. 8.10. ALLISON LCT TRANSMISSION, P. 10. 8.11. ALLISON WTEC MD TRANSMISSION, P. 12. 8.13. ALLISON WTEC MD TRANSMISSION, P. 13. 8.14. ALLISON WTEC MD TRANSMISSION, P. 14.	64 65 66 69 71 73 74 75 76 79
	7.12. ESPAR COOLANT HEATER WITH RSM TANK, P. 12. 7.13. ESPAR COOLANT HEATER WITH AF FUEL TANK, P. 13. CHASSIS ACCESSORIES (CHAPTER 8). 8.1. AIR DRYER AND DRAIN VALVE, P. 1. 8.2. FUEL HEATER SYSTEM, P. 2. 8.3. ABS — HYDRAULIC 16, P. 3. 8.4. ABS — HYDRAULIC 16, P. 4. 8.5. AIR SOLENOID MODULE (OPTIONAL), P. 5. 8.6. BENDIX AIR ABS, P. 6. 8.7. BENDIX AIR ABS6, P. 7. 8.8. BENDIX AIR ABS6, P. 8. 8.9. ALLISON LCT TRANSMISSION, P. 9. 8.10. ALLISON LCT TRANSMISSION, P. 10. 8.11. ALLISON LCT TRANSMISSION, P. 11. 8.12. ALLISON WTEC MD TRANSMISSION, P. 12. 8.13. ALLISON WTEC MD TRANSMISSION, P. 13. 8.14. ALLISON WTEC MD TRANSMISSION, P. 14. 8.15. CROSSING GATE, P. 15. 8.16. BRAKE MONITORING (OPTIONAL), P. 16.	64 65 66 68 70 71 74 75 76 79
	7.12. ESPAR COOLANT HEATER WITH RSM TANK, P. 12. 7.13. ESPAR COOLANT HEATER WITH AF FUEL TANK, P. 13. CHASSIS ACCESSORIES (CHAPTER 8). 8.1. AIR DRYER AND DRAIN VALVE, P. 1 8.2. FUEL HEATER SYSTEM, P. 2. 8.3. ABS — HYDRAULIC 16, P. 3. 8.4. ABS — HYDRAULIC 16, P. 4. 8.5. AIR SOLENOID MODULE (OPTIONAL), P. 5. 8.6. BENDIX AIR ABS, P. 6. 8.7. BENDIX AIR ABS6, P. 7. 8.8. BENDIX AIR ABS6, P. 8. 8.9. ALLISON LCT TRANSMISSION, P. 9. 8.10. ALLISON LCT TRANSMISSION, P. 10. 8.11. ALLISON WTEC MD TRANSMISSION, P. 12. 8.13. ALLISON WTEC MD TRANSMISSION, P. 13. 8.14. ALLISON WTEC MD TRANSMISSION, P. 13. 8.15. CROSSING GATE, P. 15. 8.16. BRAKE MONITORING (OPTIONAL), P. 16.	64 65 66 68 70 71 74 75 76 78 79
	7.12. ESPAR COOLANT HEATER WITH RSM TANK, P. 12. 7.13. ESPAR COOLANT HEATER WITH AF FUEL TANK, P. 13. CHASSIS ACCESSORIES (CHAPTER 8). 8.1. AIR DRYER AND DRAIN VALVE, P. 1. 8.2. FUEL HEATER SYSTEM, P. 2. 8.3. ABS — HYDRAULIC 16, P. 3. 8.4. ABS — HYDRAULIC 16, P. 4. 8.5. AIR SOLENOID MODULE (OPTIONAL), P. 5. 8.6. BENDIX AIR ABS, P. 6. 8.7. BENDIX AIR ABS6, P. 7. 8.8. BENDIX AIR ABS6, P. 8. 8.9. ALLISON LCT TRANSMISSION, P. 9. 8.10. ALLISON LCT TRANSMISSION, P. 10. 8.11. ALLISON LCT TRANSMISSION, P. 11. 8.12. ALLISON WTEC MD TRANSMISSION, P. 12. 8.13. ALLISON WTEC MD TRANSMISSION, P. 13. 8.14. ALLISON WTEC MD TRANSMISSION, P. 14. 8.15. CROSSING GATE, P. 15. 8.16. BRAKE MONITORING (OPTIONAL), P. 16.	64 65 66 69 71 75 75 75 76 78 79
	7.12. ESPAR COOLANT HEATER WITH RSM TANK, P. 12. 7.13. ESPAR COOLANT HEATER WITH AF FUEL TANK, P. 13. CHASSIS ACCESSORIES (CHAPTER 8). 8.1. AIR DRYER AND DRAIN VALVE, P. 1 8.2. FUEL HEATER SYSTEM, P. 2. 8.3. ABS — HYDRAULIC 16, P. 3. 8.4. ABS — HYDRAULIC 16, P. 4. 8.5. AIR SOLENOID MODULE (OPTIONAL), P. 5. 8.6. BENDIX AIR ABS, P. 6. 8.7. BENDIX AIR ABS6, P. 7. 8.8. BENDIX AIR ABS6, P. 8. 8.9. ALLISON LCT TRANSMISSION, P. 9. 8.10. ALLISON LCT TRANSMISSION, P. 10. 8.11. ALLISON WTEC MD TRANSMISSION, P. 12. 8.13. ALLISON WTEC MD TRANSMISSION, P. 13. 8.14. ALLISON WTEC MD TRANSMISSION, P. 13. 8.15. CROSSING GATE, P. 15. 8.16. BRAKE MONITORING (OPTIONAL), P. 16.	64 65 66 69 71 75 74 75 76 78 79

9.4. HEADLIGHTS, MARKER, PARK, TURN, AND STOP LIGHT — N/PEDESTAL MOUNT P. 4	
P. 4	 20
9.6. HEADLIGHTS, MARKER, PARK, TURN, AND STOP LIGHT, F. S	INT
LIGHTS, P. 6	וויול 97
9.7. PANEL LIGHTS, P. 7	
9.8. CHILD REMINDER SYSTEM, P. 8.	
9.0. CHILD REWINDER 3131EW, F. 0	
10. BODY BUILDER CONNECTION DATA (CHAPTER 10)	00
10.1. BODY BUILDER CONNECTIONS, P. 1	
10.2. BODY BUILDER CONNECTIONS, P. 1	
10.3. BODY BUILDER CONNECTIONS, P. 3.	
10.4. BODY BUILDER CONNECTIONS, P. 4	
10.5. STOP ARM AND RED / AMBER LIGHTS, P. 5	
10.6. EMERGENCY EXIT BUZZER LIGHTS AND POST TRIP INSPECTION, P. 6	94
10.7. DOOR OPEN / CLOSE WITH ELECTRICAL CONTROL, P. 7	
10.8. DOOR OPEN / CLOSE WITH AIR CONTROL, P. 8	
10.9. WHEELCHAIR LIFT INTERLOCK, P. 9.	
10.10. FLASHER SWITCHES, P. 10.	
10.11. PARK BRAKE STATUS, P. 11	
10.12. DUAL WIPER MOTORS FOR PT, P. 12.	
10.13. REDUNDANT DOOR CONTROLS, P. 13	
10.14. MANUAL DOOR CONTROLS, P. 14	
10.14. MIANOAL DOOK CONTROLO, 1. 14	
11. CONNECTOR COMPOSITES (CHAPTER 11)	104
11.1. CONNECTOR COMPOSITES (1002), (1003), (1004), P. 1	
11.2. CONNECTOR COMPOSITES (1005), (1007), P. 2	
11.3. CONNECTOR COMPOSITES (1009), (1010), (1011), P. 3	
11.4. CONNECTOR COMPOSITE (1011), P. 4	
11.5. CONNECTOR COMPOSITE (1011), P. 5	
11.6. CONNECTOR COMPOSITES (1012), (1014F), P. 6	
11.7. CONNECTOR COMPOSITES (1015), (1016), (1017), (1018), P. 7	
11.8. CONNECTOR COMPOSITES (1019), (1020), (1021), (1023), (1028), P. 8	
11.9. CONNECTOR COMPOSITES (1029), (1100), (1101), (1104), (1105), P. 9	112
11.10. CONNECTOR COMPOSITES (1200), (1201), (1203), (1204), P. 10	
11.11. CONNECTOR COMPOSITES (1400), (1401), (1402), P. 11	
11.12. CONNECTOR COMPOSITES (1403), (1404), (1500), (1501), P. 12	
11.13. CONNECTOR COMPOSITES (1505), (1505), (1600), P. 13	
11.14. CONNECTOR COMPOSITES (1601), (1602), (1603), P. 14	
11.15. CONNECTOR COMPOSITES (1604), (1650), (1657M), P. 15	
11.16. CONNECTOR COMPOSITES (1660), (1661), P. 16	
11.17. CONNECTOR COMPOSITES (1700), P. 17	
11.18. CONNECTOR COMPOSITES (1700), P. 18	
11.19. CONNECTOR COMPOSITES (1701), P. 19	
11.20. CONNECTOR COMPOSITES (1701), P. 20	
11.21. CONNECTOR COMPOSITES (1702), P. 21	124
11.22. CONNECTOR COMPOSITES (1800), (1804), P. 22	125
11.23. CONNECTOR COMPOSITES (1809), (1810), (1811), (1812), (1823), P. 23	
11.24. CONNECTOR COMPOSITES (1824), (1828), (1830), (1850), P. 24	
11.25. CONNECTOR COMPOSITES (1900), (1901), (1906), (1907), (1912), P. 25	
11.26. CONNECTOR COMPOSITES (4002), (4003), (4005), (4006), (4016), P. 26	129
11.27. CONNECTOR COMPOSITES (4017), (4034), (4036), (4039), (4040), (4041), P. 27	
11.28. CONNECTOR COMPOSITES (4046), (4087), (4111), P. 28	

11.29.	CONNECTOR	COMPOSITES	(4200), (4201), (4202), (4203), (4301), P. 29	132
11.30.	CONNECTOR	COMPOSITES	(4302), (4303), (4500), (4905), (6011), P. 30	133
		COMPOSITES		
11.32.	CONNECTOR	COMPOSITES	(6020), P. 32	135
11.33.	CONNECTOR	COMPOSITES	(6022), (6023), (6200), (6259), (6260), P. 33	136
11.34.	CONNECTOR	COMPOSITES	(6261), (6262), (6263), (6316), (6323), P. 34	137
11.35.	CONNECTOR	COMPOSITES	(6334), (6400), (6401), (6402), (6406), (6703), P.	35138
11.36.	CONNECTOR	COMPOSITES	(6704), (6715), (6740), (7104), P. 36	139
11.37.	CONNECTOR	COMPOSITES	(7150), P. 37	140
11.38.	CONNECTOR	COMPOSITES	(7250), (7350), (7600), P. 38	
11.39.	CONNECTOR	COMPOSITES	(7603), (7604), (7605), (7607), (7701), P. 39	
11.40.	CONNECTOR	COMPOSITES	(7801), (8000), (8001), P. 40	143
11.41.	CONNECTOR	COMPOSITES	(8003), (8004), (8100L), (8100R), P. 41	144
11.42.	CONNECTOR	COMPOSITES	(8310), (8311), (8312), (8450), (8601), P. 42	145
11.43.	CONNECTOR	COMPOSITES	(9000), (9001), (9002), P. 43	146
11.44.	CONNECTOR	COMPOSITES	(9003), (9004), (9100), P. 44	147
11.45.	CONNECTOR	COMPOSITES	(9100), (9101), (9254), (9257), P. 45	148
			(9258), (9260), (9261), P. 46	
11.47.	CONNECTOR	COMPOSITES	(9501), (9503), (9506), (9507), P. 47	150
			(9508), (9510), (9511), P. 48	
			(9512), (9513), P. 49	
			(9514), (9515), (9516), (9517), P. 50	
			(9518), (9519), (9520), (9521), P. 51	
11.52.	CONNECTOR	COMPOSITES	(9522), (9526), (9527), P. 52	155
			(9533), (9534), (9535), P. 53	
			(9536), (9537), (9538), P. 54	
11.55.	CONNECTOR	COMPOSITES	(9539), (9540), (9541), P. 55	158
11.56	CONNECTOR	COMPOSITES	(9736), (9777), (9778), P. 56	159

1. TABLE OF CONTENTS (CHAPTER 1)

2. INSTRUCTIONS AND CHARTS (CHAPTER 2)

2.1. ABBREVIATIONS, P. 1

NTERNATIONAL TRUCK AND ENGINE CORPORATION THIS PRINT IS PROVIDED ON A RESTRICTED BASIS AND				ELECTRICAL CIRCUIT DIAGRAM CHAPTER				
IS NOT TO BE USED IN ANY WAY DETRIMENTAL TO THE EREST OF INTERNATIONAL TRUCK AND ENGINE CORPORATION.				ABBREVIATIONS				
ABBREVIA	TION DESCRIPTION	ABBREVI	ATION	DESCRIPTION	ABBREVIATION	DESCRIPTION		
ACCESS	ACCESSORY	CRUS		CRUISE	PWR	POWER		
ACCUM	ACCUMULATOR	CUR	1	CURRENT	PRESS	PRESSURE		
AC	AIR CONDITIONING	G DPNL		DASHPANEL	RAD	RADIO		
AIR CLNR	AIR CLEANER	DFTR		DEFLECTOR	RR	REAR		
ALT	ALTERNATOR	DFR		DEFROSTER	RLY	RELAY		
ACCEL	ACCELERATOR	DEG		DEGREE	RES	RESISTOR		
AC	ALTERNATING CURI			DIAGRAM	REGEN	REGENERATE		
AFTR	AFTERTREATMENT	DSL		DIESEL	R	RIGHT		
AMM	AMMETER	DIFF		DIFFERENTIAL	RTR	ROTOR		
AMP HR	AMPERE HOUR	DIMR		DIMMER ELECTRICAL	SNSR	SENSOR		
AMPL	AMPERE HOUR AMPLIFIER	ELEX		ELECTRICAL ELECTRONICS	SHED	SHIELD		
ARM	ARMATURE	ENG		ENGINE	SLPR	SLEEPER		
ARSR	ARRESTER	EXH		EXHAUST	SLV	SLEEVE		
ASSY	ASSEMBLY	FL		FLUID	SPKR	SPEAKER		
AUX	AUXILIARY	FWD		FORWARD	SPR	SPRING		
B/U	BACK - UP	FR		FRONT	STD	STANDARD		
BTRY	BATTERY	FREO		FREQUENCY	STRG	STEERING		
ВМ	BENCHMARK I NG	GA		GAUGE	STLITE	SATELLITE		
BLK	BLOCK	GEN		SENERATOR	SUNSH	SUNSHADE		
B005	BOOSTER	GND		GROUND	SW	SWITCH		
вот	ВОТТОМ	HARN		HARNESS	SYS	SYSTEM		
BK	BRAKE	HDLP		HEADLAMP	TACH	TACHOMETER		
BRKR	BREAKER	HTD		HEATED	TEMP	TEMPERATURE		
BRTHR	BREATHER	HT TR		HEAT TREAT	TERM	TERMINAL		
BR I BUZ	BRIGHT	HTR HP		HEATER	THROT	THROTTLE		
CA	CABLE	HYD		HORSEPOWER HYDRAUL I C	TRAC	TRACTION		
CD	CANDELA	lib		IDENTIFICATION		TRAILER		
CP	CANDLEPOWER	IGN		IGNITION	XDCR	TRANSDUCER		
CAP	CAPACITOR	ILLUM		ILLUMINATION	XFER	TRANSFER		
CAT	CATERPILLAR	IND		INDICATOR	XFMR	TRANSFORMER		
CHAS	CHASSIS	INST		INSTRUMENT	XSTR	TRANSISTOR		
СН	CHOKE	INT		INTERMITTENT	XMSN	TRANSMISSIO		
CIRC	CIRCUIT	L		_EFT	XMTR	TRANSMITTER		
CLK	CLOCK	LT		_ I GHT	TRK	TRUCK		
CW	CLOCKWISE	LTR		_ IGHTER	UPR	UPPER		
CLSTR	CLUSTER	LWR		OWER	VLV	VALVE		
CL	CLUTCH	MAG		MAGNET	VERT	VERTICAL		
COL	COLUMN	MOD		MODULATOR	VM	VOLTMETER		
CMDNT	COMMUTATOR	MDL		MODULE	VOL	VOLUME		
CMPNT	COMPONENT	MOT		MOTOR MOUNTED	WSHR	WASHER		
CONN	CONNECTOR	NEG		NEGATIVE	WDO	WINDOW		
CONT	CONTINUED	NEG N/		NOT WITH	WSHLD	WINDSHIELD		
CSL	CONSOLE	NO.		NUMBER	WPR	WIPER		
CONT	CONTACT	PASS		PASSENGER	W/	WITH		
CONT	CONTROL	POSN		POSITION	W/O	WITHOUT		
CONV	CONVERTER	POS		POSITIVE				
CLR	COOLER	POT		POTENTIOMETER				
CTSY	COURTESY							
DATE	CHANGE	REV REFERENCE	DRAWN	NAME				
	+		U00K64		GRAM, BE,CE BUS			
4MAYO7 R	- 4 1 3 CO VIAO MEDIVANIA"	A 60782B	RELEASE NO.	DATE PART I	ÅE08-56	595 *** 0		

Figure 1 Abbreviations

2.2. ACRONYMS, P. 2

RNATIONAL TRUCK AND ENGINE CORPORAT IIS PRINT IS PROVIDED ON A RESTRICTED BASIS A S NOT TO BE USED IN ANY WAY DETRIMENTAL TO TI TOF INTERNATIONAL TRUCK AND ENGINE CORPORAT	ND HE	ACRONYMS	APTE
	·		
DESCRIPTION	ACRONYM		ACRONYM
ANTILOCK BRAKING SYSTEM	ABS	HEAVY DUTY DIESEL	HDD
ANTENNA COMMUNICATION UNIT	ACU	HIGH PERFORMANCE TRUCK	HPT
ALTERNATING CURRENT	AC	HEATING, VENTILATION, AND	HVAC
AXLE TO BACK OF CAB	AC	AIR CONDITIONING INJECTOR DRIVE MODULE	1 DM
AXLE TO FRAME	AF		
ACCELERATOR PEDAL MODULE	APM	INPUT/OUTPUT	1/0
ACCELERATOR POSITION SENSOR	APS	INTEGRATED MOBILE COMMUNICATION TERMINAL	IMCT
AUXILIARY POWER UNIT	APU	INSTRUMENT PANEL	I/P
AMERICAN TRUCKING ASSOCIATION	ATA	INDEPENDENT POWER TAKE-OFF	IPTO
AUTOMATIC TRACTION CONTROL	ATC	LIGHT COMMERCIAL TRANSMISSION	LCT
AUDIO VIDEO INTERFACE	AVI	LOW PRESSURE MODULE	LPM
BAROMETRIC ATMOSPHERE PRESSURE	BAP	MEDIUM DUTY	MD
BRAKE HORSEPOWER	BHP	MALFUNCTION INDICATION LAMP	MIL
BACK OF CAB	BOC	MULTIPLEX SWITCH MODULE	MSM
CITIZEN BAND	СВ	PYROMETER AMMETER MODULE	PAM
COLD CRANKING AMPERES	CCA	POWER DISTRIBUTION CENTER	PDC
CLEAN POWER ELECTRICAL CONNECTOR		PROGRAMMABLE LOGIC CONTROLLER	PLC
CENTRAL PROCESSING UNIT	CPU	POWER TAKE-OFF	PTO
CAB OVER ENGINE	COE	PULSE WIDTH MODULATION	PWM
DIRECT CURRENT	DC	REAR AXLE	RA
DRIVER CONTROL MODULE	DCM	RADIO FREQUENCY	RF
DIGITAL DATA LINK DIESEL OXIDATION CATALYST INLET	DDL	ROLL STABILITY PROGRAM	RSP
TEMPERATURE	DOCT	SEVERE SERVICE	SS
DIESEL PARTICULATE FILTER	DPF	TRANSMISSION CONTROL MODULE	TCM
DIESEL PARTICULATE FILTER DELTA PRESSURE	DPFDP	TERRESTRIAL COMMUNICATION UNIT	TMCT
DIESEL PARTICULATE	DPFT	COMMUNICATION TERMINAL	
FILTER TEMPERATURE DIESEL TURBOCHARGED	DT	THERMAL OVERCRANK PROTECTION THROTTLE POSITION SENSOR	TOCP
DAY TIME RUNNING LIGHTS	DTRL	WORLD TRANSMISSION	
ELECTRONIC CONTROL MODULE	ECM	ELECTRONIC CONTROLS	WTEC
ELECTRONIC CONTROL UNIT	ECU	VEHICLE SPEED OUTPUT	vso
EXHAUST GAS RECIRCULATION	EGR	VEHICLE SPEED SENSOR	VSS
EXHAUST GAS TEMPERATURE	EGT	ZERO VOLT REFERENCE	ZVR
ELECTRO MAGNETIC INTEFERENCE	EMI	VEHICLE SPEED OUTPUT	V50
END OF FRAME	EOF	VEHICLE SPEED SENSOR	VSS
ELECTRIC TRAILER BRAKE	ETB	ZERO VOLT REFERENCE	ZVR
FRONT AXLE	FA	1	
FRONT END	FE	1	
FRONT OF DASH	FOD	1	
FULL POWER BRAKE	FPB	1	
GLOBAL POSITIONING SYSTEM	GPS	1	
HYDRAULIC CONTROL UNIT	HCU	1	
HEAVY DUTY	HD	1	
	_	-	

REV REFERENCE

^ 60782B

UOOK640

RELEASE NO. 59974E

Figure 2 Acronyms

REVISED AND REDRAWN.

DATE

CNA 4MAYO7

DATE 22SEP06

CIRCUIT DIAGRAM, BE,CE BUS

[™]AE08-56595[™]

02

2.3. CIRCUIT DIAGRAM INSTRUCTIONS, P. 3

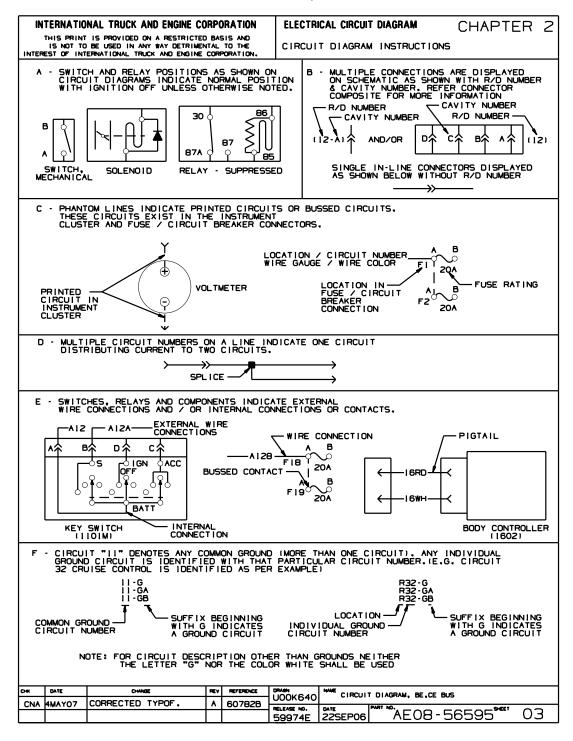


Figure 3 Circuit Diagram Instructions

2.4. CIRCUIT NUMBER IDENTIFICATION AND COLOR, P. 4

INTERNATIONAL TRUCK				ELECTR	CAL CIRCUI	T DIAGRAM	CHAPTE	ER 2
THIS PRINT IS PROVIDED IS NOT TO BE USED IN A INTEREST OF INTERNATIONAL TR	NY WAY D	ETRIMENTAL	TO TH€	CIRCUI	T NUMBER	IDENTIFICAT	TION AND COLOF	?
CIRCUIT				DESC	RIPTION			
NUMBER I			TOR-FIEL		MIFITON			
2	RD	ALTERNA	TOR-CHAR	GE				
3						/ / J1708 (+)		
	GY DKBL			OMMUNICAT		<u>' / J1708 (-)</u> ' (+)		
4	GY			OMMUNICAT				
5	YL					/ / J 939/		
6	GN GY					/// / J1939/ THAN 9 VOLT		
7	RD		TOR-RESI		LED (LESS	I I I I I I I I I I I I I I I I I I I		
8								
9	GY			ENCE IZVR	1	· · · · · · · · · · · · · · · · · · ·		
10	WH		/ ENGIN					
12		ACCESOR		HOUND				
13	PK	IGNITIO						
	BK			BODY BUIL	DER CONNE	CTORI		
14	RD	BATTERY	TCH FEED					
16	1	KE! SWI	ICII I EED					
17	PK		CONTROL					
18	PK		UG / PRE					
19	I TGN		SHUTDOWN POWER MO					
21	TN			ROLS (ETH	ERI			
22	TN			ONITORING	/ CONTRO	L		
23	TN		FAN / SH					
24 25	GY TN	PYROMET	EXHAUST	DRAKE				
26	TN	AMMETER						
27	TN	VOLTMET						
28	TN		ENT & GA					
29 30	TN		OIL TEMP	MPERATURE ERATURE				
31	TN			L TEMPERA	TURE			
32	TN		L TEMPER					
33 34	TN	ENGINE COOLANT	OIL LEVE	L				
35	TN		OIL PRES	SURE				
36	TN	FUEL LE						
37	TN	FUEL PU						
38	GY	AIR DRY	ER HEATE	R			——	
40	+			E WARNING				
OW DATE CHA		REV	REFERENCE	UOOK640	CIRCUIT	T DIAGRAM, BE,CE	BUS	
CNA 4MAYO7 ADDED COL		^	60782B	RELEASE NO.	DATE	AE08	- 56505 ⁹⁴⁸¹	04
CIRCUIT 4	•			59974E	22SEP06	VEOR.	- 20232	

Figure 4 Circuit Number Identification and Color

2.5. CIRCUIT NUMBER IDENTIFICATION AND COLOR, P. 5

INTERNATIONAL TRUCK AND ENGINE CORPORATION	ELECTRICAL CIRCUIT DIAGRAM	CHAPTER 2
THIS PRINT IS PROVIDED ON A RESTRICTED BASIS AND IS NOT TO BE USED IN ANY WAY DETRIMENTAL TO THE INTEREST OF INTERNATIONAL TRUCK AND ENGINE CORPORATION.	CIRCUIT NUMBER IDENTIFICATION	AND COLOR (CONT)

CIRCUIT NUMBER	COLOR	DESCRIPTION
41	TN	AIR TEMPERATURE
42	GY	FRONT AXLE ENGAGED
43	GY	POWER DIVIDER LOCK (PDL) WARNING
44	GY	PARK BRAKE WARNING
45	LTGN	ANTITHEFT WARNING
46	GY	POWER TAKEOFF WARNING
47	GY	SPEEDOMETER
48	GY	TACHOMETER
49	GY	DIFFERENTIAL LOCK WARNING
50	YL	LIGHT SWITCH FEED
51	YL	DIMMER SWITCH FEED
52	YL	HEADLIGHT HI - BEAM
53	YL	HEADLIGHT LO - BEAM
54	BN	PARKING / MARKER LIGHTS
55	OR	TURN SIGNAL - FEED
	OR	TURN SIGNAL LIGHTS - LEFT
56	YL	TURN SIGNAL LIGHTS - LEFT (BODY BUILDER CONNECTION)
	OR	TURN SIGNAL LIGHTS - RIGHT
57	LTGN	TURN SIGNAL LIGHTS - RIGHT (BODY BUILDER CONNECTION)
58	BN	CLEARANCE / IDENTIFICATION LIGHTS
59	GY	SOLENO I D
60	OR	HAZARD LIGHTS
61	GY	AIR SUSPENSION
62	DKBL	PANEL LIGHTS
63	DKBL	COURTESY / DOME LIGHTS
64	YL	FOG / DRIVING LIGHTS
65	OR	CAB REAR FLOOD LIGHTS
66	YL	DAYTIME RUNNING LIGHTS
67	GY	OBSTACLE AVOIDANCE / REMOTE SENSOR
68	BN	TAIL LIGHTS
69	BN	LICENSE PLATE LIGHT
70	OR	STOP LIGHTS
70	RD	STOP LIGHTS (BODY BUILDER CONNECTION)
7.	OR	BACK-UP LIGHTS
71	LTBL	BACK-UP LIGHTS (BODY BUILDER CONNECTION)
72	OR	TRAILER AUXILIARY FEED - BATTERY
73	LTGN	PWM
74	LTGN	HEATER RECIRC MOTOR
75	LTGN	HEATER BLOWER MOTOR
76	LTGN	AUXILIARY FAN
77	LTGN	AIR CONDITIONER
78	LTGN	MIRRORS - HEATED, MOTORIZED
79	GY	SEAT BELTS
80	Вк	SLEEPER BOX RELAY - FEED

CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	CIRCUIT DIAGRAM, BE,CE BUS				
CNA	4MAYO7	CORRECTED TYPOF.	٨	60782B	UOOK640		PART NOSICET			
						22SEP06		05		

Figure 5 Circuit Number Identification and Color (Cont.)

2.6. CIRCUIT NUMBER IDENTIFICATION AND COLOR, P. 6

INTERNATIONAL TRUCK AND ENGINE CORPORATION	ELECTRICAL CIRCUIT DIAGRAM	CHAPTER 2
THIS PRINT IS PROVIDED ON A RESTRICTED BASIS AND IS NOT TO BE USED IN ANY WAY DETRIMENTAL TO THE INTEREST OF INTERNATIONAL TRUCK AND ENGINE CORPORATION.	CIRCUIT NUMBER IDENTIFICATION	AND COLOR (CONT)

C I RCU I T NUMBER	COLOR	DESCRIPTION
81	LTGN	POWER DOOR LOCKS
82	GY	WINDSHIELD WIPER
83	LTGN	POWER WINDOWS
84	LTGN	CIGAR LIGHTER
85	GY	HORN
86	LTGN	RADIO - ENTERTAINMENT / CLOCK
87	GY	WINDSHIELD WASHER
88	LTGN	CLOCK / HOURMETER
89	VT	AIR BAG
90	GY	HYDRAULIC BRAKE PUMP
91	VT	INTERCOMMUNICATION
92	TN	TRANSMISSION CONTROLS - ELECTRONICS
93	TN	AXLE SHIFT CONTROL
94	GY	ANTILOCK BRAKE SYSTEM
95	TN	EXHAUST EMISSION
96	YL	SNOW PLOW LIGHTS / CRUISE CONTROLS
97	VT	ENGINE CONTROLS - ELECTRONIC
98	BK	DATALINK AND DIAGNOSTICS
99	VT	ACCELERATOR POSITION SENSOR (APS)
100	GY	AIR HORN (ELECTRIC SOLENOID ACTUATED)
101	TN	BRAKE APPLICATION AIR
102	YL	FLASH TO PASS
103	LTGN	BODY BUILDER AUXILIARY FEED
104	DKBL	REMOTE START / STOP
105	LTGN	HEATED SEATS
106	OR	HIGH VOLTAGE ALTERNATOR AC CHARGE
107	GY	INTRUMENT CLUSTER ELECTRONIC FEED (5V)
108	GY	BRAKE PAD WEAR SENSOR
109	GY	BRAKE STROKE / SLACK ADJUSTER
110	GY	INTRUMENT CLUSTER ELECTRONIC GROUND
111	TN	FUEL FILTER RESTRICTION TRANSDUCER
112	GY	LIFT GATE

PREFIX	LOCATION
٨	CAB - INSTRUMENT PANEL MODULE
В	CAB - DRIVER CONTROL MODULE
С	CAB - HEADER / CLEARANCE LIGHTS
D	CAB - ROOF / REAR PANEL
Е	CAB - LEFT DOOR / DOORS
F	CAB - RIGHT DOOR / DOORS
н	CAB - SLEEPER
J	CAB - DASH (OUTSIDE)
К	ENGINE / RADIATOR
L	TRANSMISSION
М	CHASSIS / FRONT END (CAB DASH PANEL FORWARD)
N	CHASSIS / CENTER SECTION (CAB DASH PANEL TO CAB REAR XMBR)
Р	CHASSIS / WHEEL BASE SECTION
R	CHASSIS / SUSPENSION / REAR AXLE / AXLES
S	CHASSIS / AF SECTION / STOP / TAIL / TURN LIGHTS
Т	TRAVEL DOORS
U	HOOD MTD HEADLIGHTS / MARKER LIGHTS
٧	SLEEPER ROOF / BACK PANEL WIRING
W	WARDROBE CABINET WIRING

CHK	DATE	CHANGE	REV	REFERENCE	DRASN	NAME
\vdash	4MAY07	CORRECTED TYPOF.	<u> </u>	60782B	U00K640	CIRCUIT DIAGRAM, BE,CE BUS
LINA	MINTU/	CORRECTED TIFOF.	┝	6078ZB	RELEASE NO.	DATE PART NO. A COO CCCOCSHEET OC
			ı		59974E	122SEP06 ALUB-56595 UD

Figure 6 Circuit Number Identification and Color (Cont.)

2.7. LAMP BULB CHART, P. 7

BULB APPLICATION BULB APPLICATION BULB APPLICATION CANDLEPOWER OR WATT BULB TRADE BACK-UP LIGHTS CLEARANCE & IDENTIFICATION SMALL COURTESY LIGHT COURTESY LIGHT COURTESY LIGHT COURTESY LIGHTS CICEARANCE & IDENTIFICATION SMALL COURTESY LIGHT COURTESY LIGHT COURTESY LIGHTS CICEARANCE & IDENTIFICATION SMALL COURTESY LIGHTS CICEARANCE & IDENTIFICATION SMALL COURTESY LIGHT COURTESY LIGHT COURTESY LIGHTS CICEARANCE & IDENTIFICATION SMALL COURTESY LIGHTS CICEARANCE & IDENTIFICATION SMALL COURTESY LIGHTS CICEARANCE & IDENTIFICATION SMALL COURTESY LIGHTS CICEARANCE & IDENTIFICATION SMALL CAMPBER CAMPBER CAMPBER COURTESY LAMPER CAMPBER CAMPB
BACK-UP LIGHTS 32 CP GE1156
CLEARANCE & IDENTIFICATION SMALL 3 CP GE168 COURTESY LIGHT 21 CP 1142 DOME LIGHTS 21 CP 1142 FOG LIGHTS 100 WATT 4921 - 1 LOW BEAMS 55 WATT GE9007 HIGH BEAMS 60 WATT GE9007 CIGAR LIGHTER 1 CP 1455 MAP LIGHT 3 CP 1816 SIDE MARKER 2548 STOP & TURN / TAIL & LICENSE PLATE 32 / 3 CP 3157 TURN SIGNAL / MARKER (FENDER) 32 / 3 CP 3157 TURN SIGNAL & MARKER LIGHT 2356 WORK (TRAILER HOOK) 35 WATT 4411 BACK-UP LIGHTS UPPER AND LOWER BUNK READING LIGHT 15 CP 1003 CABINET / WARDROBE LIGHT 5W 7575 UNDER BUNK LIGHT 21 CP / 2(12 CP) 577 / 211 ACCENT LIGHT 21 CP / 2(12 CP) 277 / 211 DOME LIGHT LAMP 15 WATT F1578 - CW SLEEPER FLOOR LIGHT 4 CP W5W HEATER AND AIR CONDITIONER CONTROL 3 CP 168
COURTESY LIGHT
FOG LIGHTS 100 WATT 4921 - I LOW BEAMS 55 WATT GE9007 HIGH BEAMS 60 WATT GE9007 CIGAR LIGHTER 1 CP 1455 MAP LIGHT 3 CP 1816 SIDE MARKER 2548 STOP & TURN / TAIL & LICENSE PLATE 32 / 3 CP 3157 TURN SIGNAL / MARKER IFENDER! 32 / 3 CP 3157 TURN SIGNAL & MARKER LIGHT 2356 WORK ITRAILER HOOK! 35 WATT 4411 BACK - UP LIGHTS UPPER AND LOWER BUNK READING LIGHT 15 CP 1003 CABINET / WARDROBE LIGHT 5W 7575 UNDER BUNK LIGHT 21 CP 2112 CP 2112 CP 2111 DOME LIGHT 2 C 112 CP 2111 DOME LIGHT 4 CP W55W HEATER AND AIR CONDITIONER CONTROL 3 CP 168
LOW BEAMS
HIGH BEAMS 60 WATT GE9007
CIGAR LIGHTER
MAP LIGHT 3 CP 1816 SIDE MARKER 2548 STOP & TURN / TAIL & LICENSE PLATE 32 / 3 CP 3157 TURN SIGNAL / MARKER (FENDER) 32 / 3 CP 3157 TURN SIGNAL & MARKER (FENDER) 32 / 3 CP 3157 TURN SIGNAL & MARKER LIGHT 2356 WORK (TRAILER HOOK) 35 WATT 4411 BACK-UP LIGHTS UPPER AND LOWER BUNK READING LIGHT 15 CP 1003 CABINET / WARDROBE LIGHT 5W 7575 UNDER BUNK LIGHT 21 CP / 2(12 CP) 577 / 211 ACCENT LIGHT 2 (12 CP) 211 DOME LIGHT 15 WATT FISTB - CW SLEEPER FLOOR LIGHT 4 CP W5W HEATER AND AIR CONDITIONER CONTROL 3 CP 168
SIDE MARKER 2548
STOP & TURN / TAIL & LICENSE PLATE 32 / 3 CP 3157
TURN SIGNAL & MARKER LIGHT 2356 WORK (TRAILER HOOK) BACK-UP LIGHTS UPPER AND LOWER BUNK READING LIGHT 15 CP 1003 CABINET / WARDROBE LIGHT 5W 7575 UNDER BUNK LIGHT 21 CP 2 (12 CP) 577 / 211 ACCENT LIGHT 2 (12 CP) 211 DOME LIGHT LAMP 15 WATT F1578 - CW SLEEPER FLOOR LIGHT 4 CP W5W HEATER AND AIR CONDITIONER CONTROL 3 CP 168
WORK (TRAILER HOOK) 35 WATT 4411 BACK-UP LIGHTS UPPER AND LOWER BUNK READING LIGHT 15 CP 1003 CABINET / WARDROBE LIGHT 5W 7575 UNDER BUNK LIGHT 21 CP / 2112 CP) 577 / 211 ACCENT LIGHT 2 (12 CP) 211 DOME LIGHT LAMP 15 WATT F15T8 - CW SLEEPER FLOOR LIGHT 4 CP W5W HEATER AND AIR CONDITIONER CONTROL 3 CP 168
BACK-UP LIGHTS UPPER AND LOWER BUNK READING LIGHT 15 CP 1003
CABINET / WARDROBE LIGHT 5W 7575 UNDER BUNK LIGHT 21 CP / 2112 CP1 577 / 211 ACCENT LIGHT 2 (12 CP1 211 DOME LIGHT LAMP 15 WATT F15T8 - CW SLEEPER FLOOR LIGHT 4 CP W5W HEATER AND AIR CONDITIONER CONTROL 3 CP 168
UNDER BUNK LIGHT 21 CP / 2(12 CP) 577 / 211 ACCENT LIGHT 2 (12 CP) 211 DOME LIGHT LAMP 15 WATT F15T8 - CW SLEEPER FLOOR LIGHT 4 CP W5W HEATER AND AIR CONDITIONER CONTROL 3 CP 168
ACCENT LIGHT 2 (12 CP) 211 DOME LIGHT LAMP 15 WATT F15TB - CW SLEEPER FLOOR LIGHT 4 CP W5W HEATER AND AIR CONDITIONER CONTROL 3 CP 168
DOME LIGHT LAMP
HEATER AND AIR CONDITIONER CONTROL 3 CP 168
READING LIGHT 15 CP 1003

Figure 7 Lamp Bulb Chart

RELEASE NO. 59974E

2.8. RELAY FUNCTION AND WIRING GUIDE, P. 8

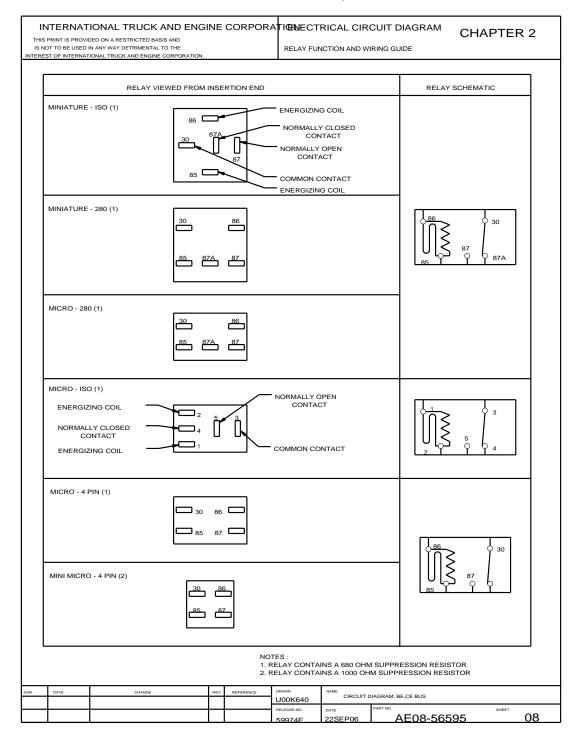


Figure 8 Relay Function and Wiring Guide

2.9. SCHEMATIC SYMBOL CHART, P. 9

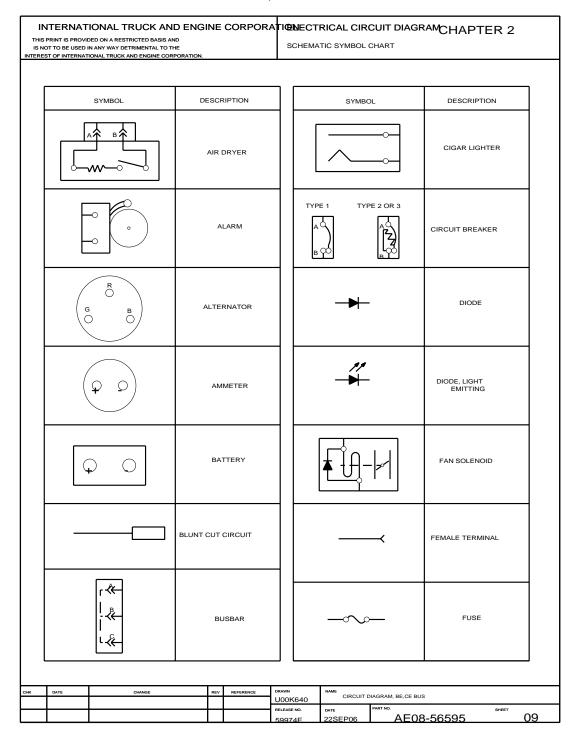


Figure 9 Schematic Symbol Chart

2.10. SCHEMATIC SYMBOL CHART, P. 10

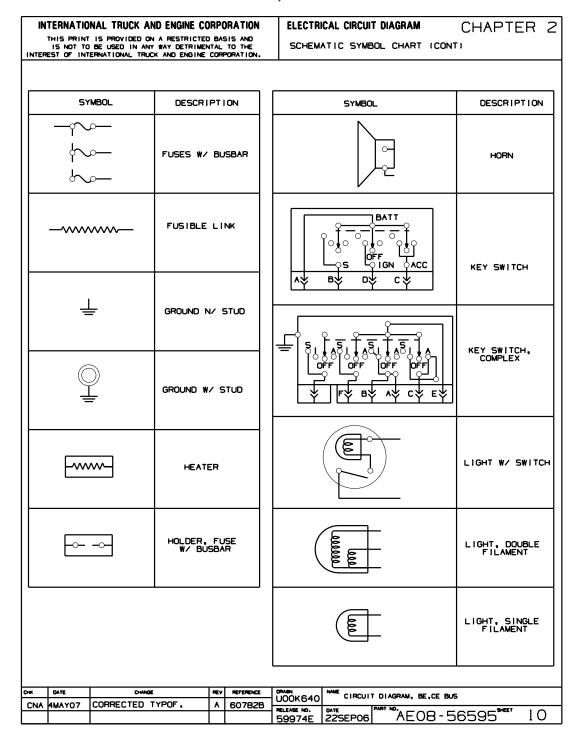


Figure 10 Schematic Symbol Chart

2.11. SCHEMATIC SYMBOL CHART, P. 11

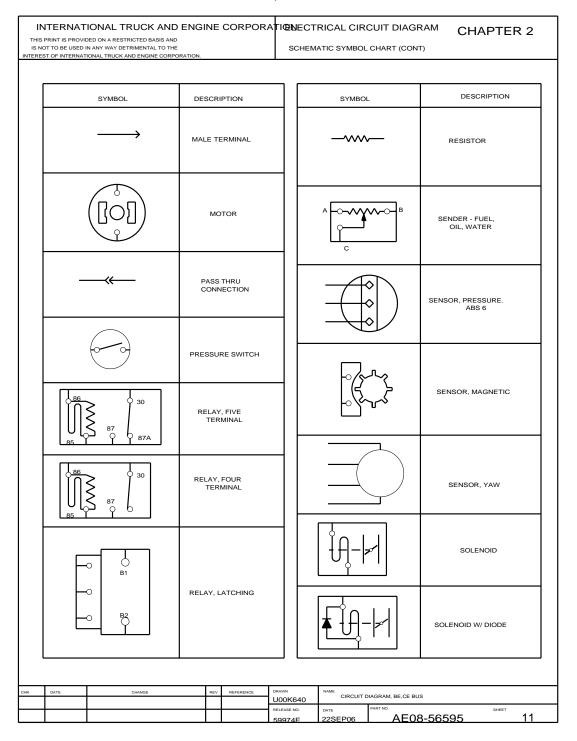


Figure 11 Schematic Symbol Chart (Cont.)

2.12. SCHEMATIC SYMBOL CHART, P. 12

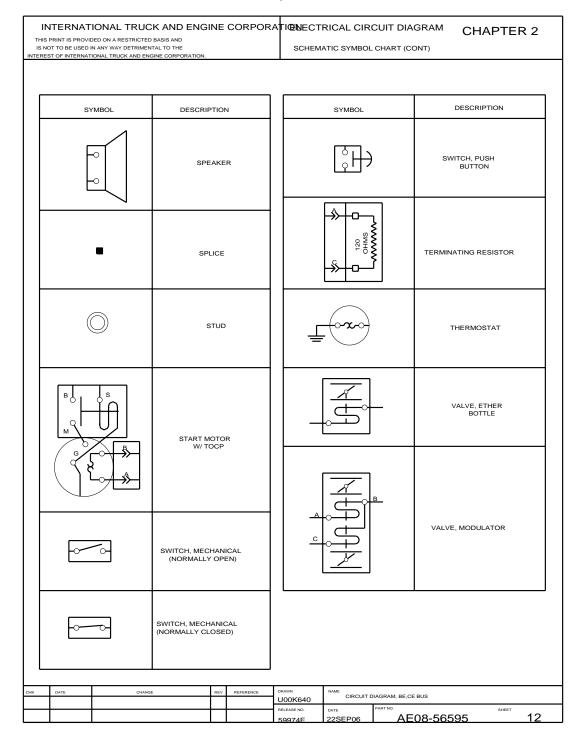


Figure 12 Schematic Symbol Chart (Cont.)

3. 12 VOLT POWER DISTRIBUTION AND DATA LINK (CHAPTER 3)

3.1. BATTERY FEED, P. 1

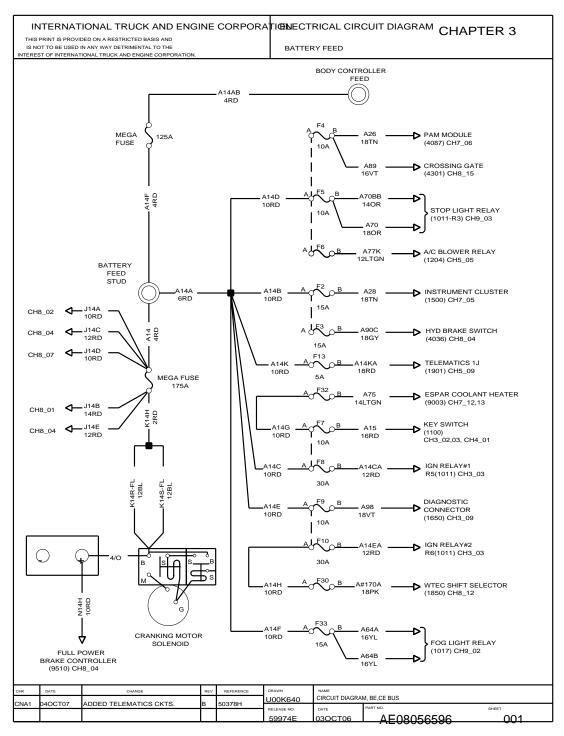


Figure 13 Battery Feed

3.2. ACCESSORY FEED, P. 2

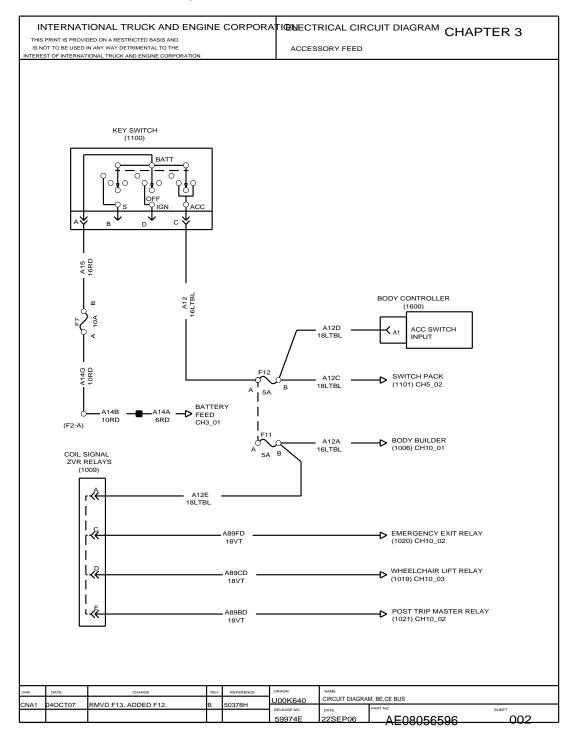


Figure 14 Accessory Feed

3.3. IGNITION FEED, P. 3

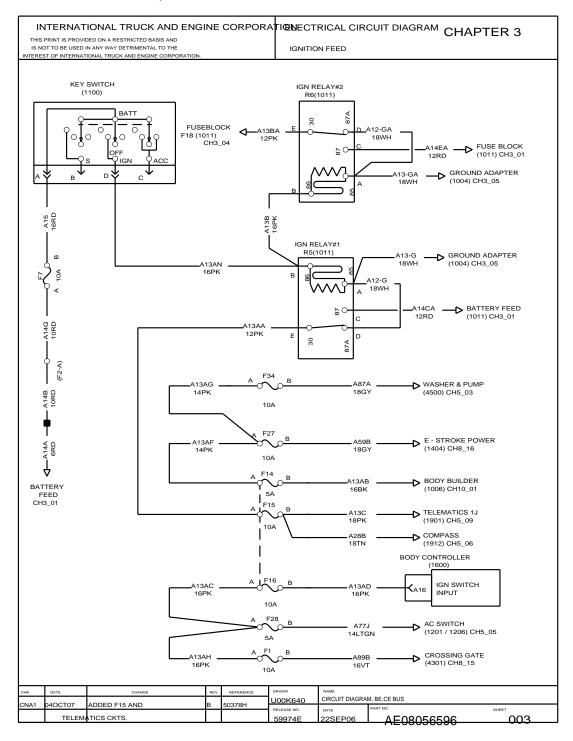


Figure 15 Ignition Feed

3.4. IGNITION FEED, P. 4

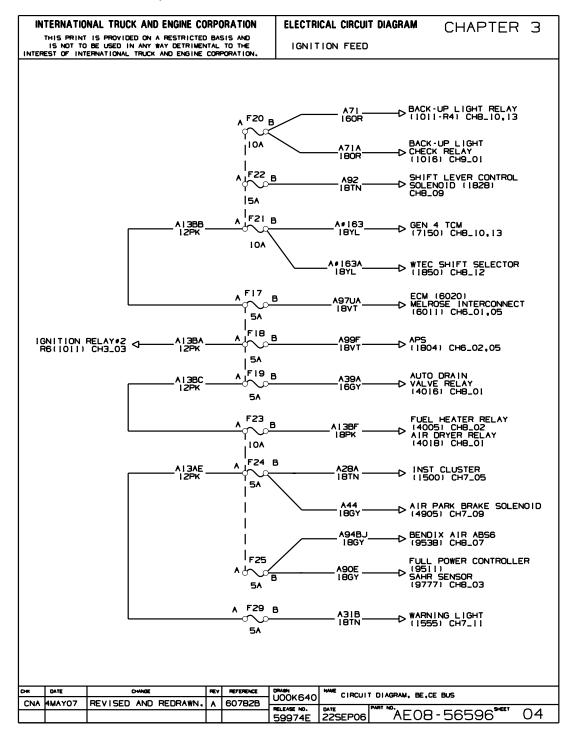


Figure 16 Ignition Feed (Cont.)

3.5. GROUND — PLATFORM, P. 5

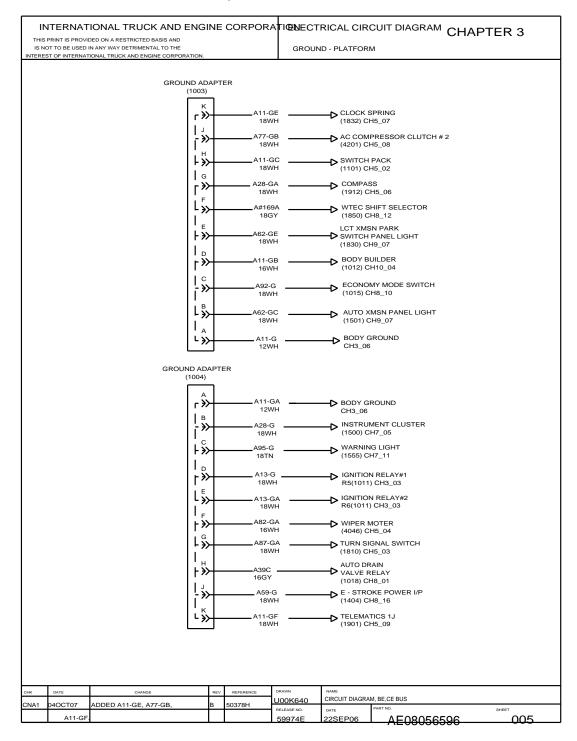


Figure 17 Ground — Platform

3.6. GROUND — PLATFORM, P. 6

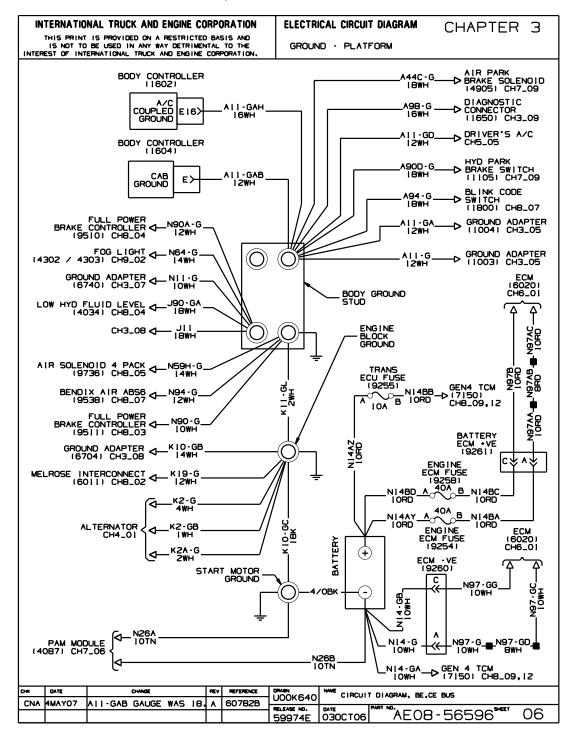


Figure 18 Ground — Platform (Cont.)

3.7. GROUND — CHASSIS, P. 7

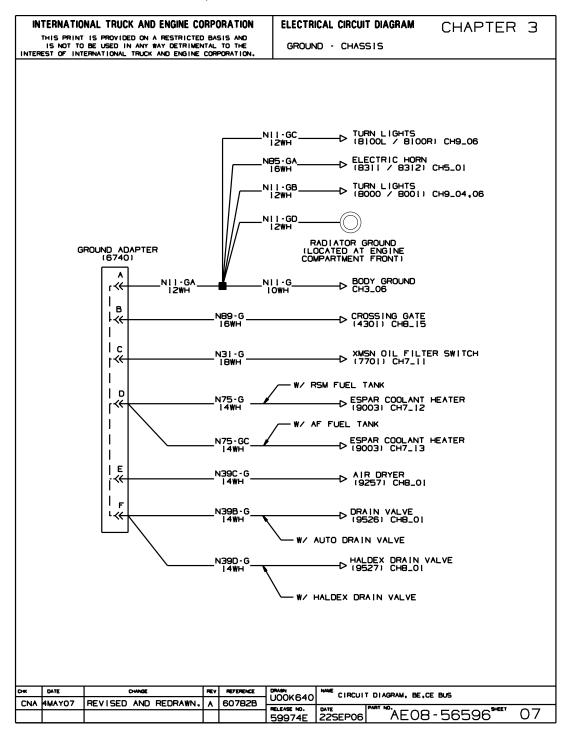


Figure 19 Ground — Chassis

3.8. GROUND — ENGINE, P. 8

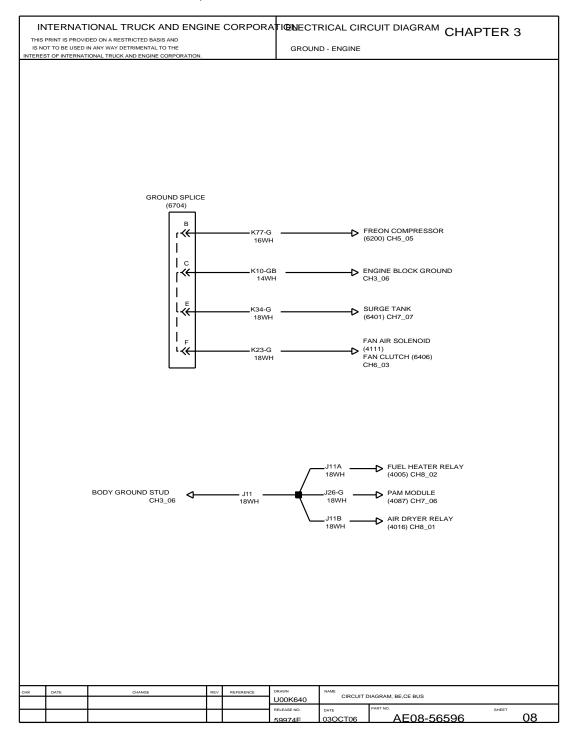


Figure 20 Ground — Engine

3.9. J1939 DATA LINK — PLATFORM AND DIAGNOSTIC CONNECTOR, P. 9

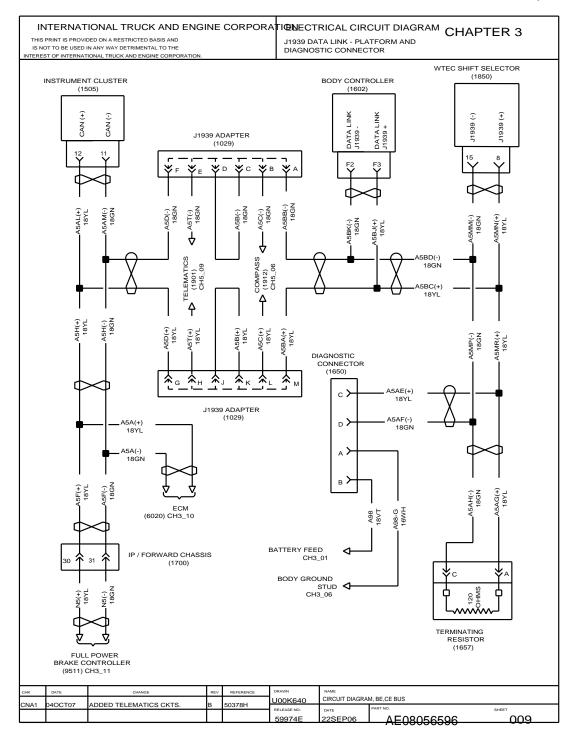


Figure 21 J1939 Data Link — Platform and Diagnostic Connector

3.10. J1939 DATA LINK — ENGINE, P. 10

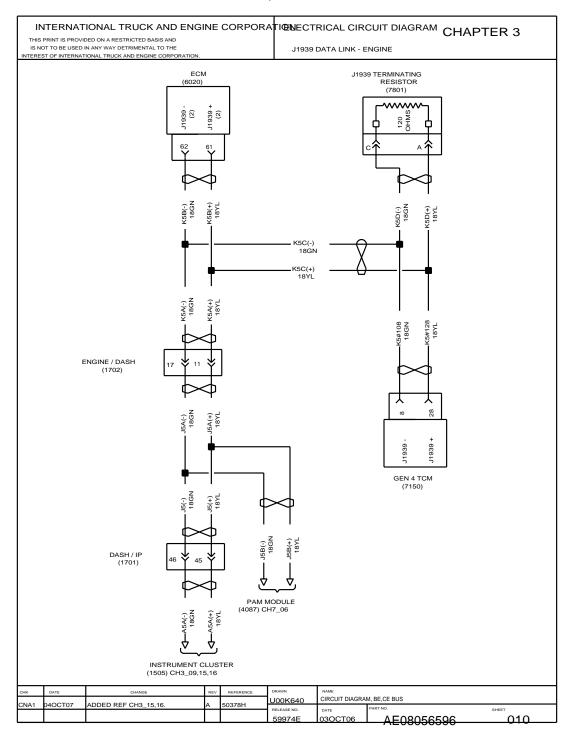


Figure 22 J1939 Data Link — Engine

3.11. J1939 DATA LINK — CHASSIS, P. 11

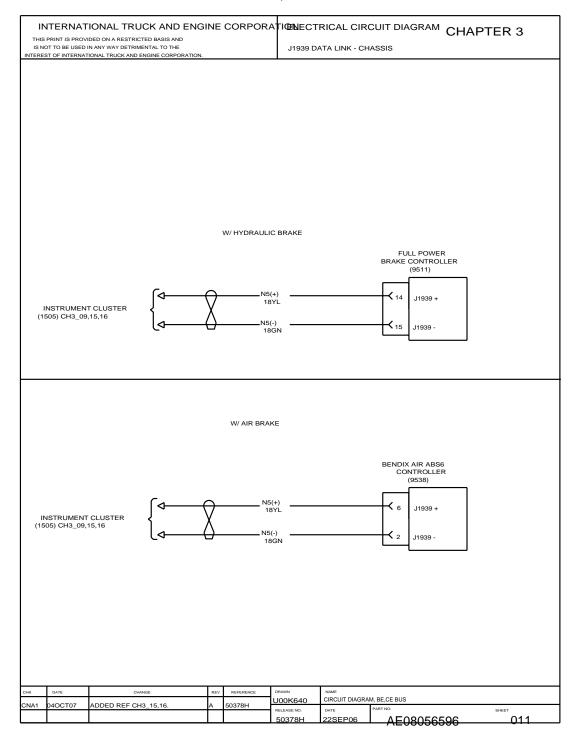


Figure 23 J1939 Data Link — Chassis

3.12. J1708 DATALINK BASIC, P. 12

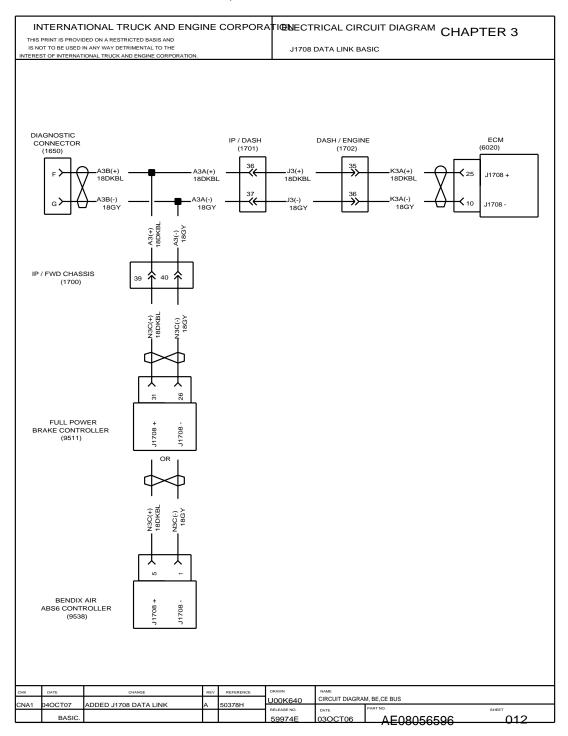


Figure 24 J1708 Datalink Basic

3.13. ZERO VOLT REFERENCE, P. 13

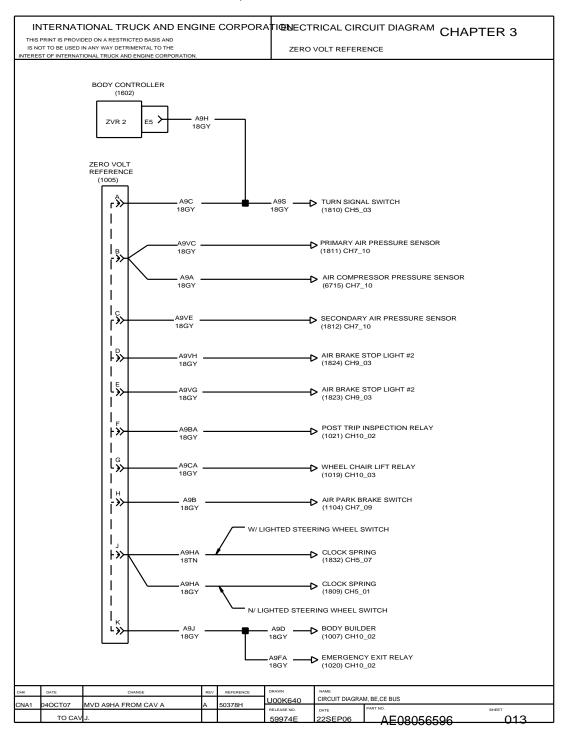


Figure 25 Zero Volt Reference

3.14. J1939 DATA LINK COMPLETE — PLATFORM AND DIAGNOSTIC CONNECTOR, P. 14

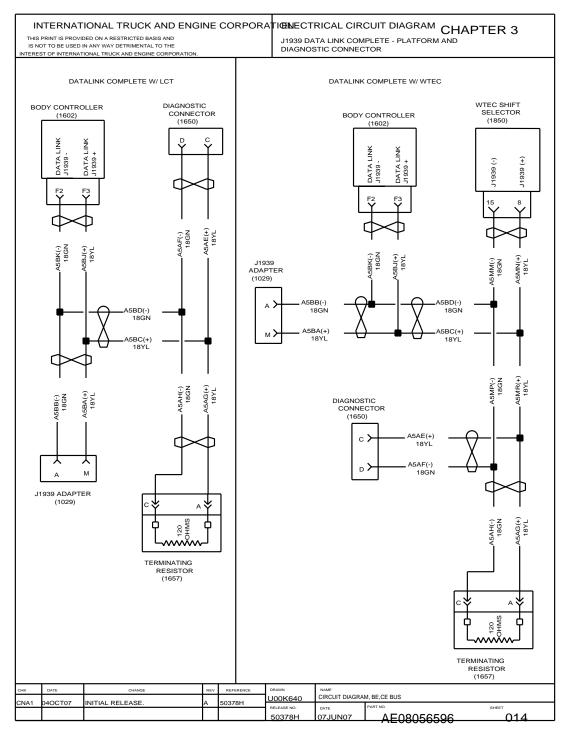


Figure 26 J1939 Data Link Complete — Platform and Diagnostic Connector

3.15. J1939 DATA LINK BASIC — PLATFORM AND DIAGNOSTIC CONNECTOR W/LCT, P. 15

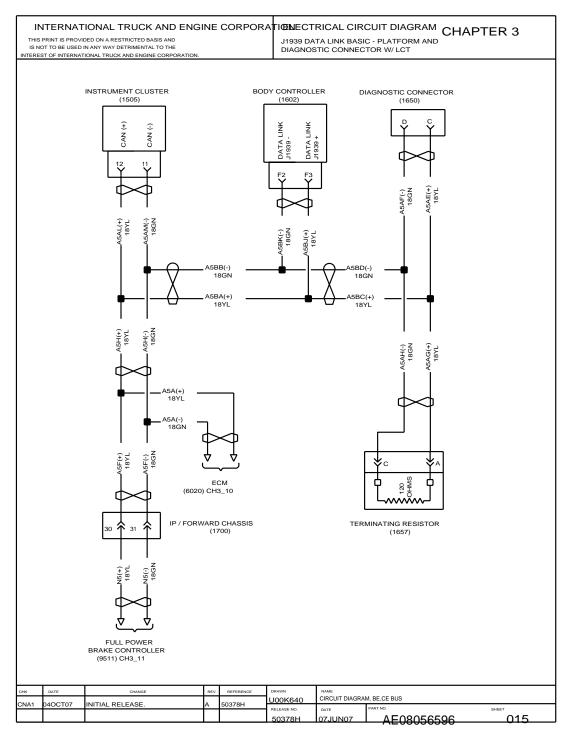


Figure 27 J1939 Data Link Basic — Platform and Diagnostic Connector w/ LCT

3.16. J1939 DATA LINK BASIC — PLATFORM AND DIAGNOSTIC CONNECTOR W/WTEC, P. 16

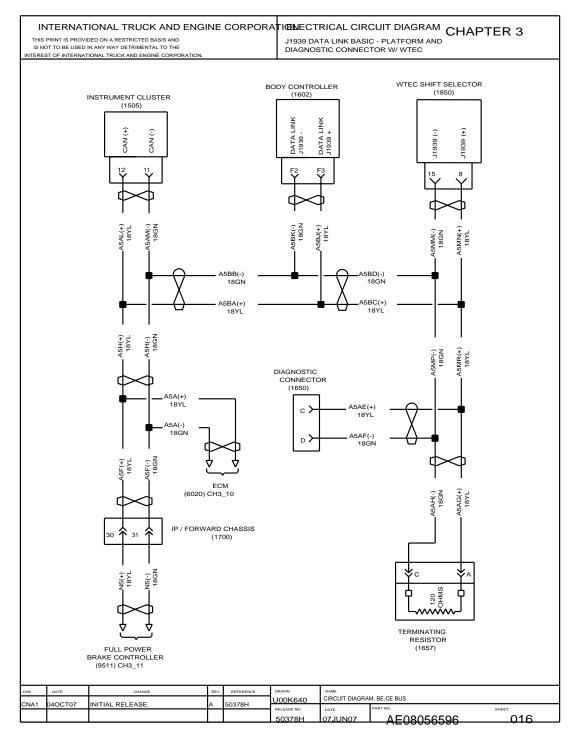


Figure 28 J1939 Data Link Basic — Platform and Diagnostic Connector w/ WTEC

3.17. J1708 DATA LINK COMPLETE, P. 17

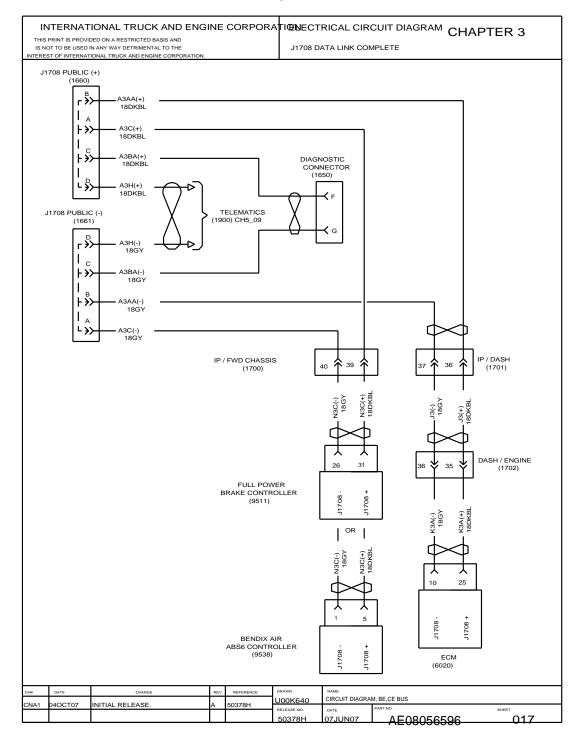


Figure 29 J1708 Data Link Complete

4. CHARGING AND CRANKING SYSTEM (CHAPTER 4)

4.1. CHARGING AND CRANKING — 16 / V8 ENGINE, P. 1

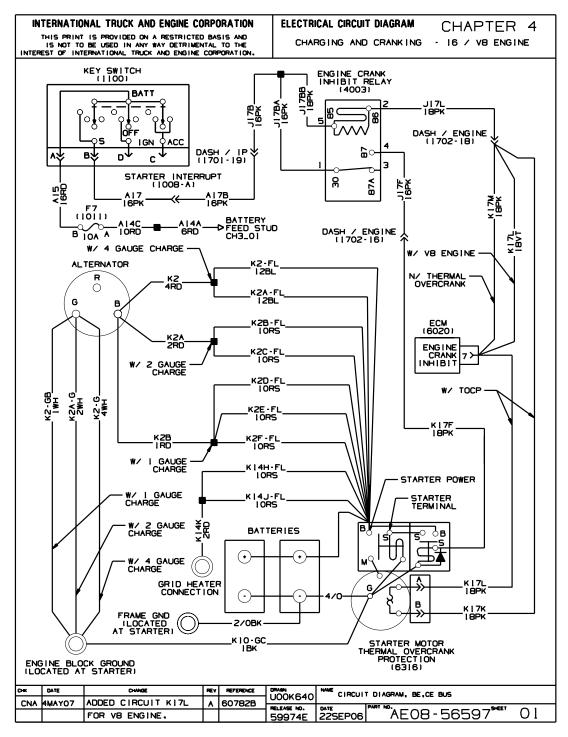


Figure 30 Charging and Cranking — I6 / V8 Engine

5. CAB ACCESSORIES (CHAPTER 5)

5.1. HORN AND STEERING WHEEL SWITCHES, P. 1

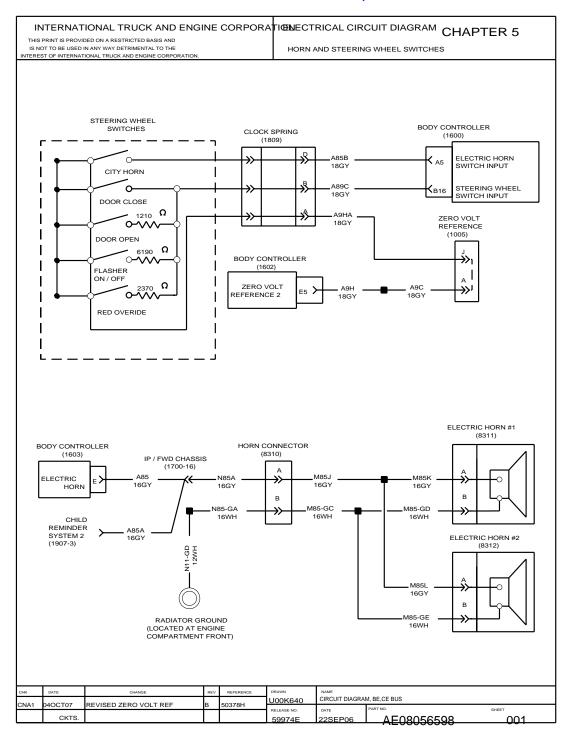


Figure 31 Horn and Steering Wheel Switches

5.2. SWITCH PACK, P. 2

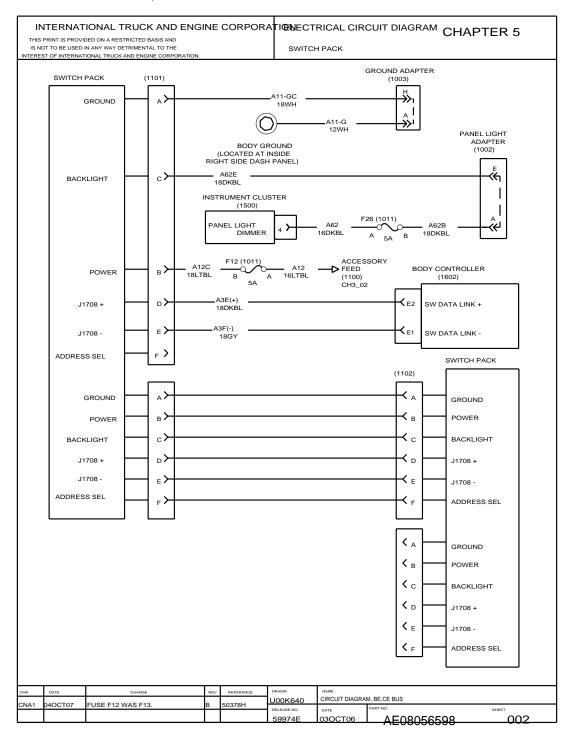


Figure 32 Switch Pack

5.3. WINDSHIELD WIPER AND WASHER, HIGH BEAM, FLASH TO PASS AND TURN SIGNAL SYSTEMS, P. 3

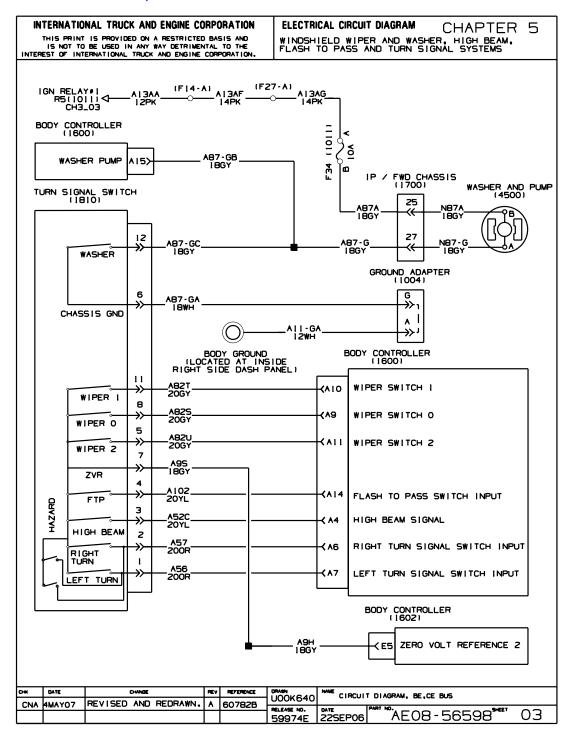


Figure 33 Windshield Wiper and Washer, High Beam, Flash to Pass and Turn Signal Systems

5.4. WINDSHIELD WIPER AND WASHER, HIGH BEAM, FLASH TO PASS AND TURN SIGNAL SYSTEMS, P. 4

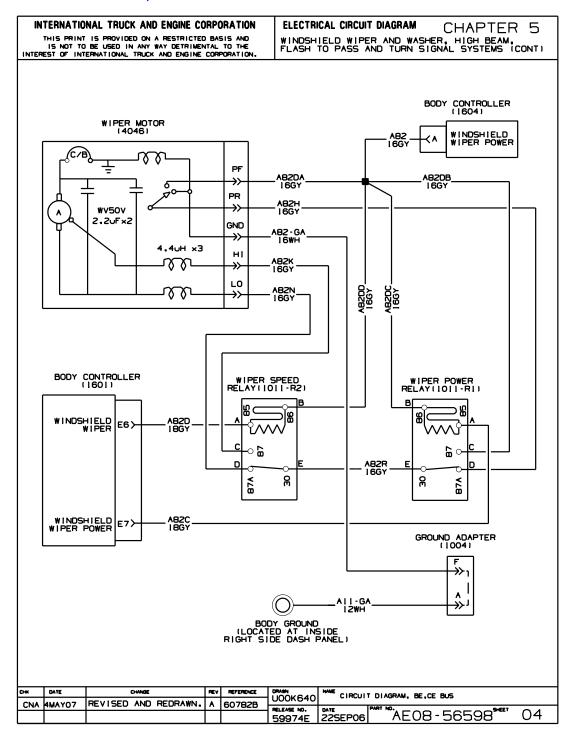


Figure 34 Windshield Wiper and Washer, High Beam, Flash to Pass and Turn Signal Systems

5.5. DRIVER'S AIR CONDITIONING (OPTIONAL), P. 5

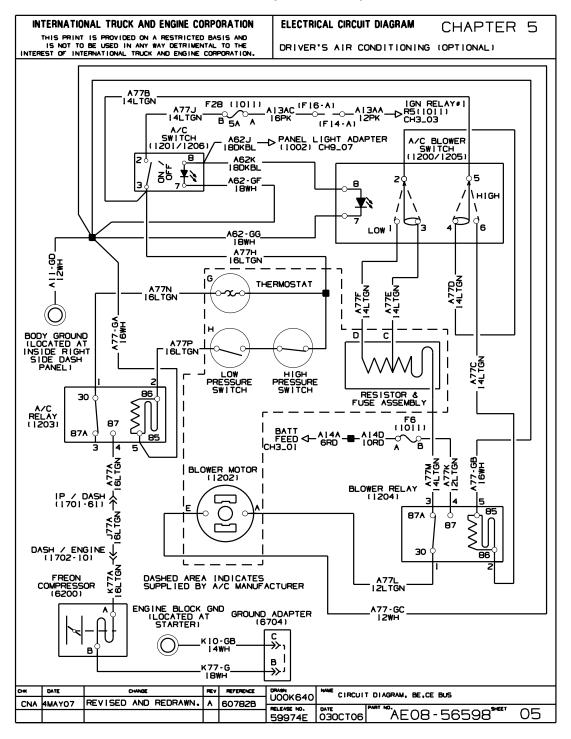


Figure 35 Driver's Air Conditioning (Optional)

5.6. COMPASS AND TEMPERATURE DISPLAY, P. 6

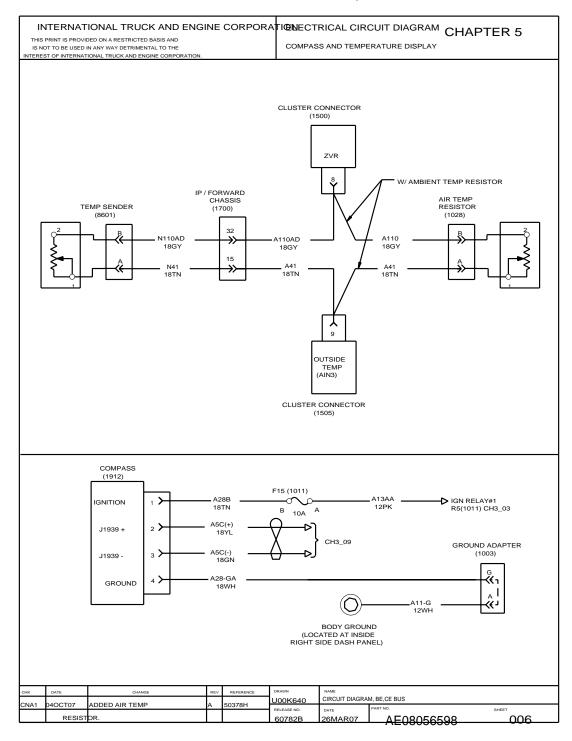


Figure 36 Compass and Temperature Display

5.7. LIGHTED STEERING WHEEL SWITCHES, P. 7

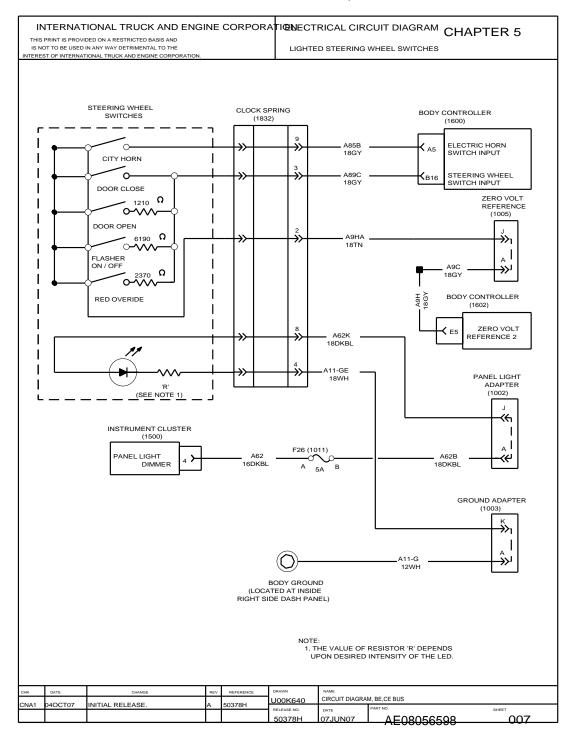


Figure 37 Lighted Steering Wheel Switches

5.8. AC COMPRESSOR CONTROL, P. 8

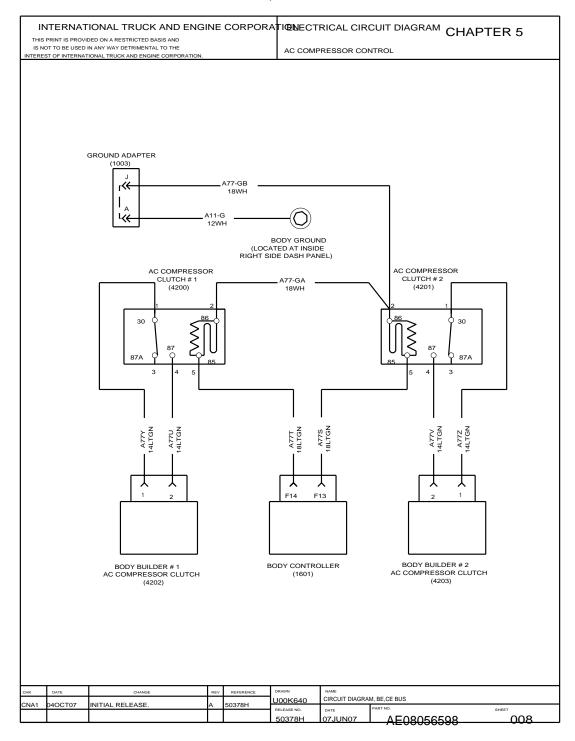


Figure 38 AC Compressor Control

5.9. TELEMATICS SYSTEM, P. 9

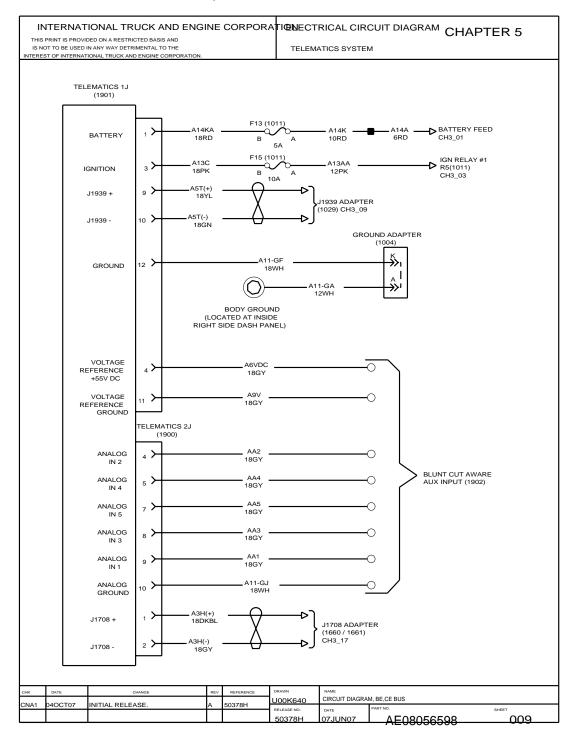


Figure 39 Telematics System

6. ENGINE ELECTRONICS (CHAPTER 6)

6.1. ELECTRONIC ENGINE CONTROLS — 16 ENGINE, P. 1

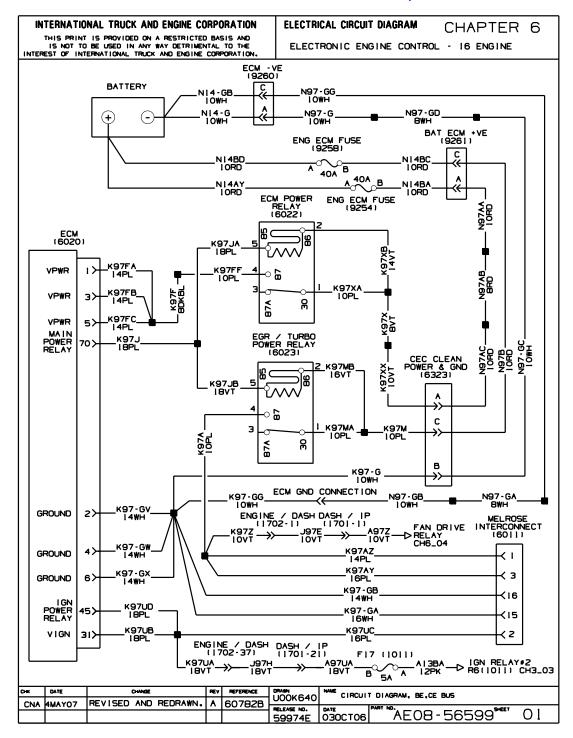


Figure 40 Electronic Engine Controls — I6 Engine

6.2. ELECTRONIC ENGINE CONTROLS — 16 ENGINE, P. 2

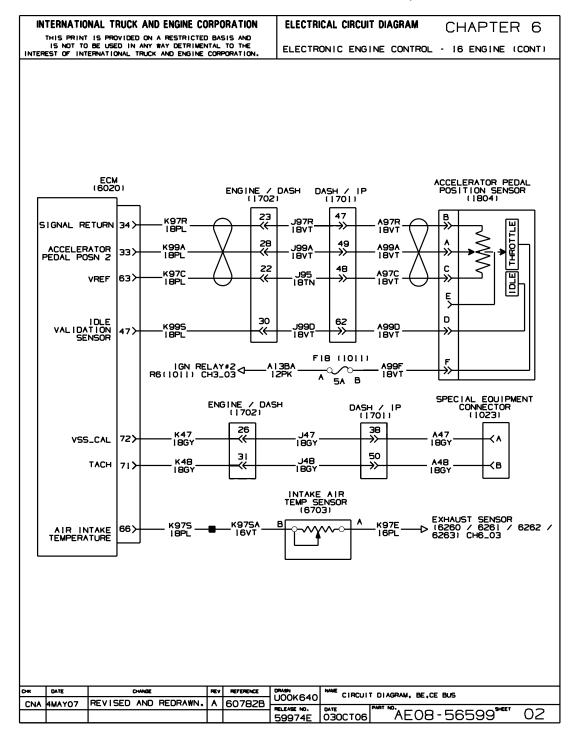


Figure 41 Electronic Engine Controls — I6 Engine (Cont.)

6.3. ELECTRONIC ENGINE CONTROLS — 16 ENGINE, P. 3

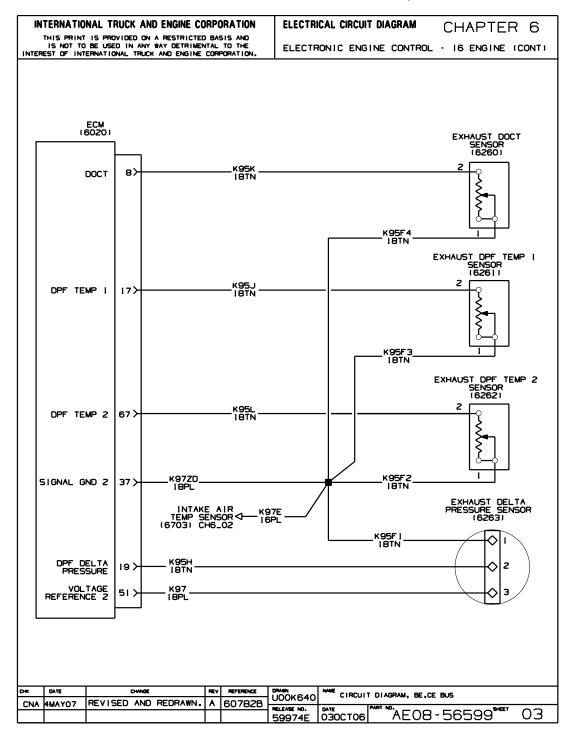


Figure 42 Electronic Engine Controls — I6 Engine (Cont.)

6.4. FAN AND SHUTTER WIRING (OPTIONAL), P. 4

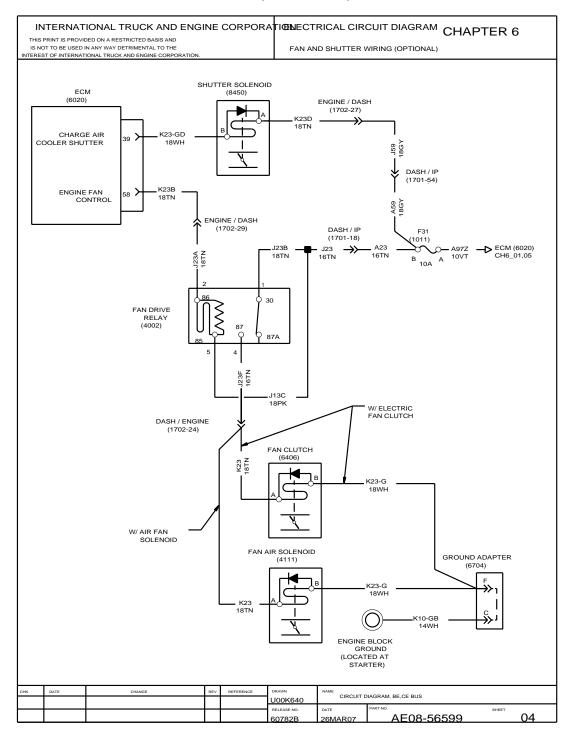


Figure 43 Fan and Shutter Wiring

6.5. ELECTRONIC ENGINE CONTROLS — V8 ENGINE, P. 5

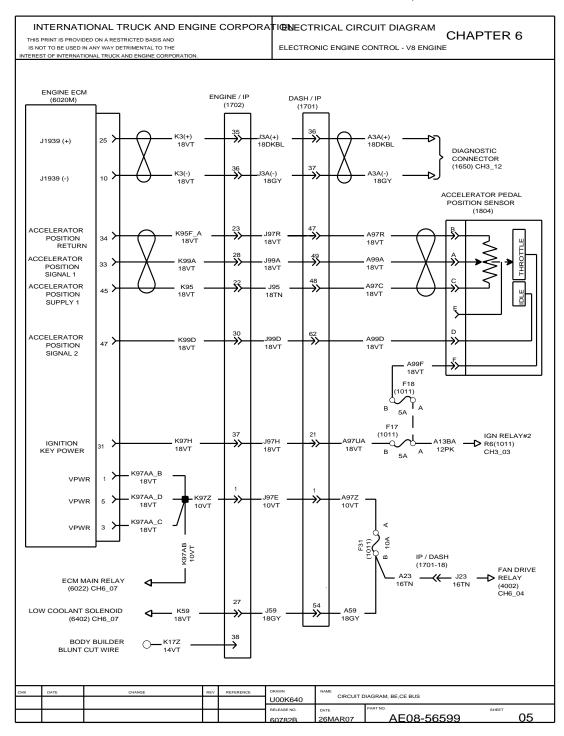


Figure 44 Electronic Engine Controls — V8 Engine

6.6. ELECTRONIC ENGINE CONTROLS — V8 ENGINE, P. 6

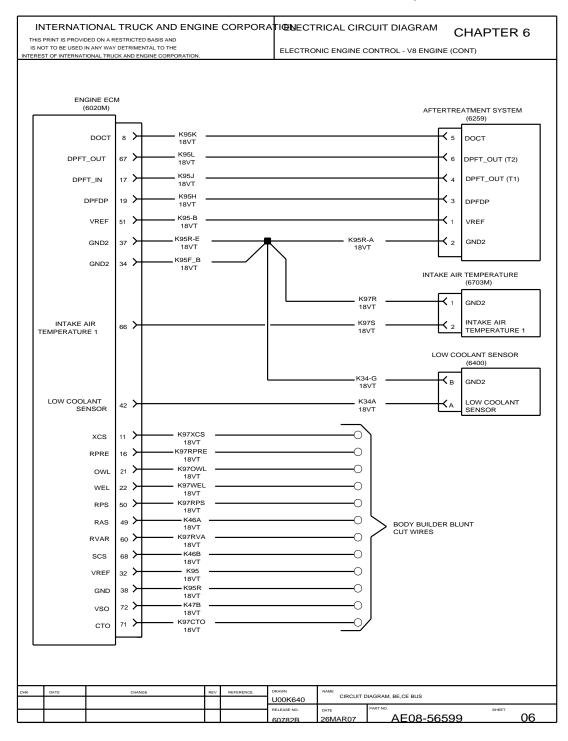


Figure 45 Electronic Engine Controls — V8 Engine (Cont.)

6.7. ELECTRONIC ENGINE CONTROLS — V8 ENGINE, P. 7

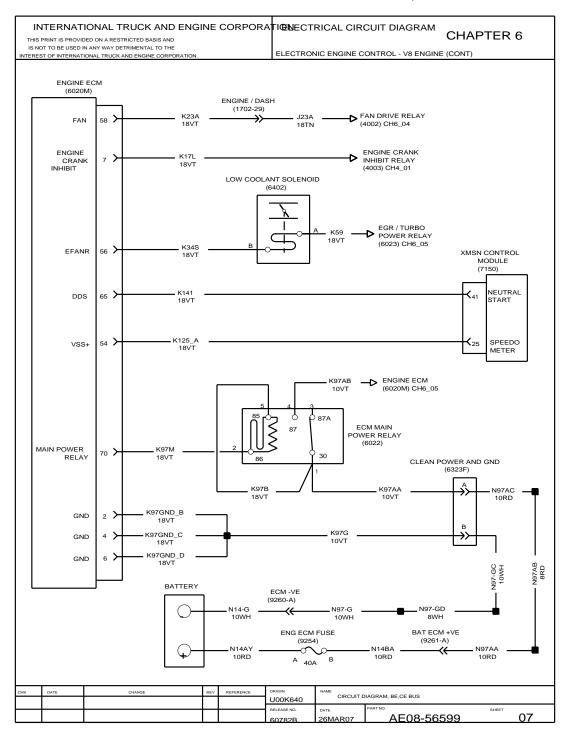


Figure 46 Electronic Engine Controls — V8 Engine (Cont.)

7. GAUGES AND WARNING LIGHTS (CHAPTER 7)

7.1. IP GAUGES, P. 1

S PRINT IS PROVIDED ON A REST			1	NOAL OIL	CUIT DIAGRA	CHAPTER	
S PRINT IS PROVIDED ON A RESTRICTED BASIS AND NOT TO BE USED IN ANY WAY DETRIMENTAL TO THE EST OF INTERNATIONAL TRUCK AND ENGINE CORPORATION.			IP / GAUGES				
		INSTRUMEN	NT PANEL GAUG	259			
GAUGE	WARNING	INOTICOME!	SIGNAL PATH			SENSOR LOCATIO	N
RPM (TACH)	LIGHT NO	ENGINE CTRL / DRIVE				ENGINE COMPARTME	
MPH/KPH (SPD)	NO NO	ENGINE CTRL / DRIVE				TRANSMISSION	
FUEL	YES	SYSTEM CTRL / DRIVE				FUEL TANK	
N/A	YES	SYSTEM CTRL / DRIVE				N/A	
AIR1 (PRES)	YES	SYSTEM CTRL / DRIVE TRAIN / J1939 CLUSTER				INSIDE CAB- DASH PN	L
AIR2 (PRES)	YES	SYSTEM CTRL / DRIVE TRAIN / J1939 CLUSTER				STEERING COL AREA	
WATER (TEMP)	YES	ENGINE CTRL / DRIVE TRAIN / J1939 CLUSTER				ENGINE COMPARTME	NT
		ENGINE CTRL / DRIVE TRAIN / J1939 CLUSTER					
ENGINE OIL (TEMP)	YES	ENGINE CTRL / DRIVE	TRAIN / J1939 C	CLUSTER		ENGINE COMPARTME	NT
OIL (PRES)	YES YES	ENGINE CTRL / DRIVE				ENGINE COMPARTME	
			TRAIN / J1939 C	CLUSTER			
OIL (PRES) TRANS (TEMP) AMMETER NOTE:	YES YES NO	ENGINE CTRL / DRIVE XMSN CTRL / SYSTEM J1939 CLUSTER PAM MODULE / DRIVE	TRAIN / J1939 C	CLUSTER		ENGINE COMPARTME	NT
OIL (PRES) TRANS (TEMP)	YES YES NO	ENGINE CTRL / DRIVE XMSN CTRL / SYSTEM J1939 CLUSTER PAM MODULE / DRIVE	TRAIN / J1939 C	CLUSTER		ENGINE COMPARTME	NT
OIL (PRES) TRANS (TEMP) AMMETER NOTE:	YES YES NO	ENGINE CTRL / DRIVE XMSN CTRL / SYSTEM J1939 CLUSTER PAM MODULE / DRIVE	TRAIN / J1939 C	CLUSTER CLUSTER USTER.	DIAGRAM, BE,CE BUS	ENGINE COMPARTME	NT

Figure 47 IP Gauges

7.2. WARNING LIGHTS, P. 2

PRINT IS PROVIDED ON A RESTRICTED BAS IT TO BE USED IN ANY WAY DETRIMENTAL	TO THE	WARNING LIGHTS				
T OF INTERNATIONAL TRUCK AND ENGINE	CORPORATION.					
	IP WAR	NING LIGHTS				
WARNING LIGHT TITLE	II WAIN	SIGNAL PATH	SENSOR LOCATION			
RANGE INHIBITED LCT	TRANS CTRL / DRIVE TRA					
FUEL FILTER		ECM / DRIVE TRAIN J1939 / CLUSTER				
ENGINE (YELLOW LED)		ENGINE CTRL / DRIVE TRAIN J1939 / CLUSTER				
ENGINE (RED LED)		ENGINE CTRL / DRIVE TRAIN J1939 / CLUSTER				
BRAKE PRESSURE (AIR)	SYSTEM CTRL / DRIVE TR		SWITCH			
BRAKE PRESSURE (HYDR)		VE TRAIN J1939 / CLUSTER	SWITCH			
BRAKE/PARK/BRAKE FLUID		VE TRAIN J1939 / CLUSTER				
PARK (HYD BRAKE) (P)		VE TRAIN J1939 / CLUSTER	SAHR TRAVEL SW			
BRAKE FLUID HYD BRK		VE TRAIN J1939 / CLUSTER	BRK RESERVOIR			
TRAC CTRL	TRUCK ABS CTRL / DRIVE	TRAIN J1939 / CLUSTER				
CHECK TRANS	TRUCK ABS CTRL / DRIVE	TRAIN J1939 / CLUSTER				
(LEFT TURN)	SYSTEM CTRL / DRIVE TR	SYSTEM CTRL / DRIVE TRAIN J1939 / CLUSTER				
WATER IN FUEL	ECM / DRIVE TRAIN J1939	FUEL FILTER				
COOLANT LEVEL	ENGINE CTRL / DRIVE TRA	AIN J1939 / CLUSTER	SURGE TANK			
CHECK ELECT SYS	SYSTEM CTRL / DRIVE TR	AIN J1939 / CLUSTER				
PARK (AIR BRAKE) (P)	SYSTEM CTRL / DRIVE TR	AIN J1939 / CLUSTER	PARK BRAKE VALVE			
ABS	TRUCK CTRL / DRIVE TRA					
(RIGHT TURN)	SYSTEM CTRL / DRIVE TR					
WAIT TO START	ENGINE CTRL / DRIVE TR					
(HIGH BEAM IND)	SYSTEM CTRL / DRIVE TR					
LIFT DOOR	SYSTEM CTRL / DRIVE TR	LIFT DOOR SWITCH				
ECON	TRANS CTRL / DRIVE TRA	IN J1939 / CLUSTER				
SERVICE (P)	SYSTEM CTRL / DRIVE TR					
AMBER FLASHER	SYSTEM CTRL / DRIVE TR					
RED FLASHER	SYSTEM CTRL / DRIVE TR					
EMERG EXIT	SYSTEM CTRL / DRIVE TR					
MALFUNCTION INDICATOR LAMP (MIL)	ECM / DRIVE TRAIN J1939					
CHANGE OIL (TEXT MESSAGE)						
	<u> </u>					
DATE CHANGE	REV REFERENCE	U00K640 NAME CIRCUIT E	IAGRAM, BE,CE BUS			

Figure 48 Warning Lights

7.3. BLANK PAGE, P. 3

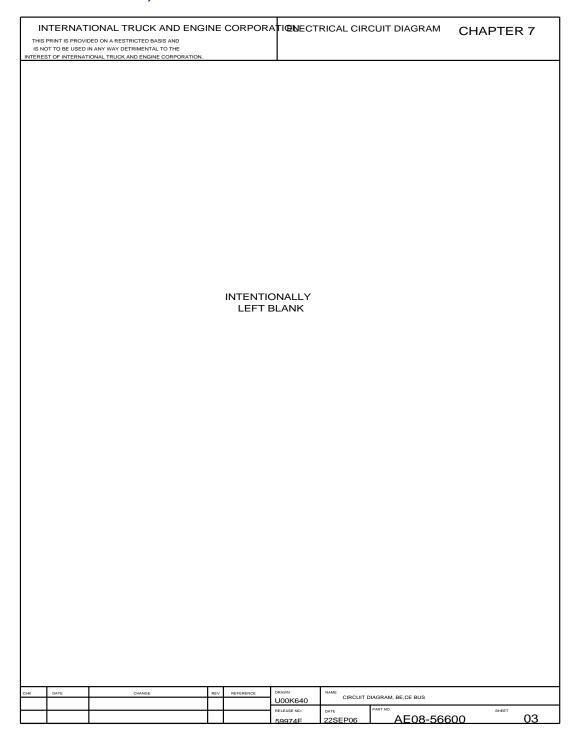


Figure 49 Blank Page

7.4. ENGINE OIL PRESSURE AND TEMPERATURE, SPEEDOMETER, TACHOMETER, VOLTMETER AND WATER TEMPERATURE GAUGE CIRCUITS, P. 4

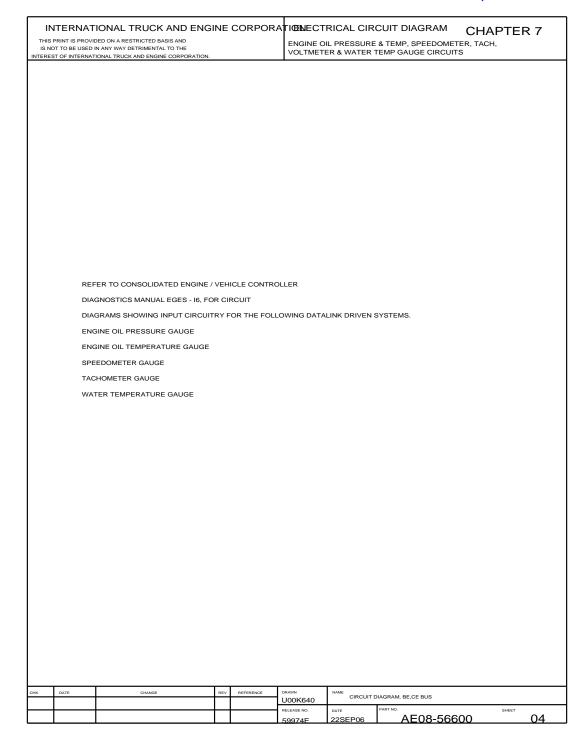


Figure 50 Engine Oil Pressure and Temperature, Speedometer, Tachometer, Voltmeter and Water Temp. Gauge Circuits

7.5. INSTRUMENT GAUGE CLUSTER, P. 5

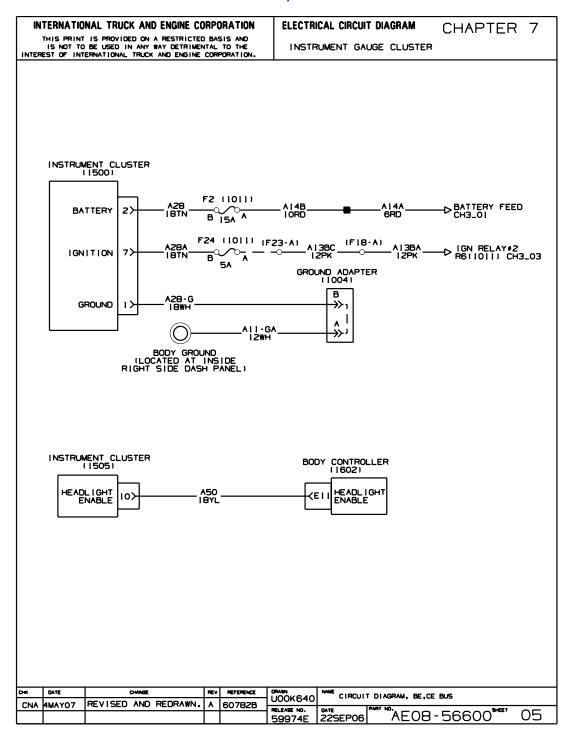


Figure 51 Instrument Gauge Cluster

7.6. AMMETER (OPTIONAL), P. 6

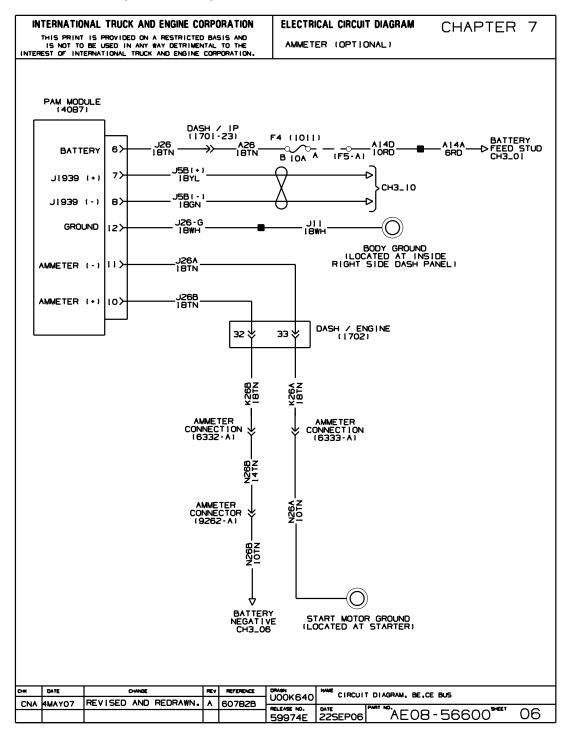


Figure 52 Ammeter (Optional)

7.7. COOLANT TANK LEVEL, P. 7

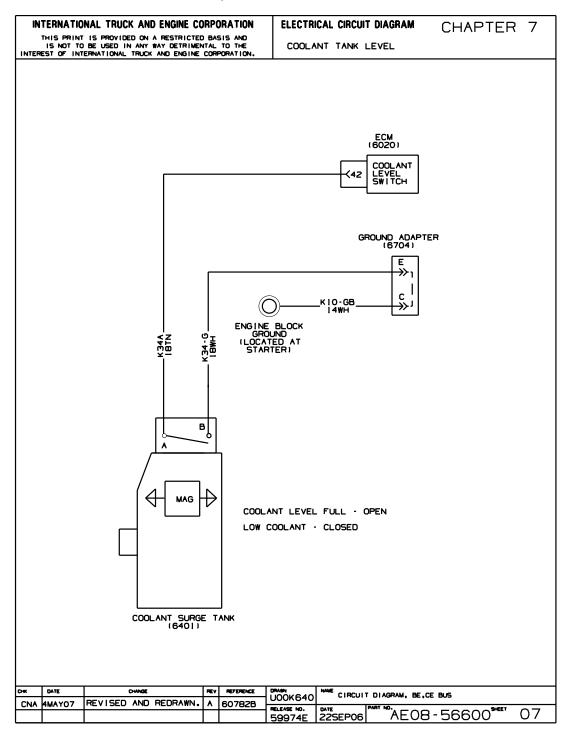


Figure 53 Coolant Tank Level

7.8. FUEL GAUGES, P. 8

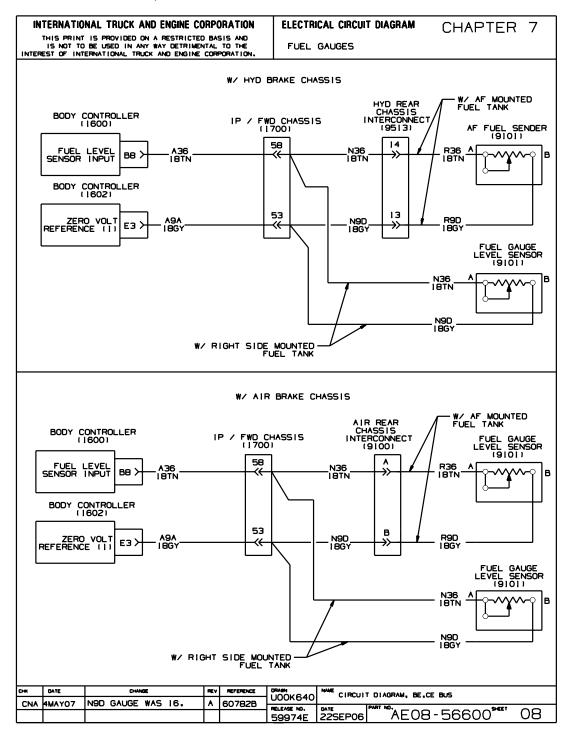


Figure 54 Fuel Gauges

7.9. PARK BRAKE, P. 9

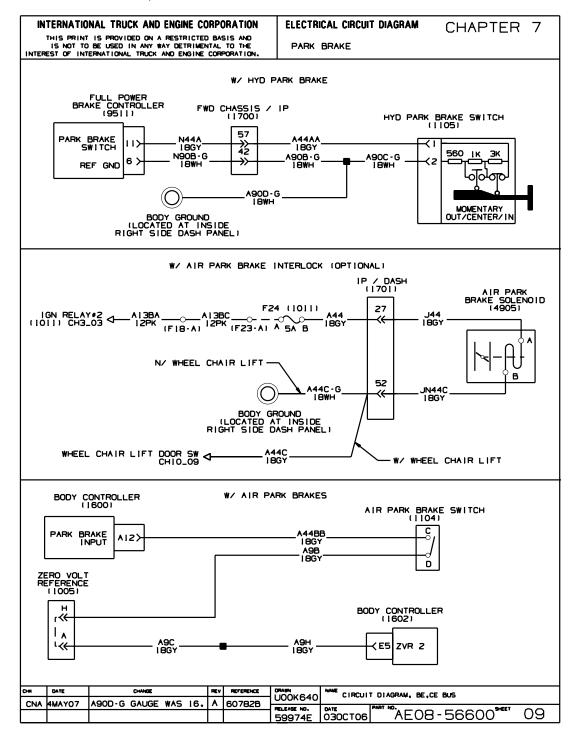


Figure 55 Park Brake

7.10. AIR PRESSURE INPUTS, P. 10

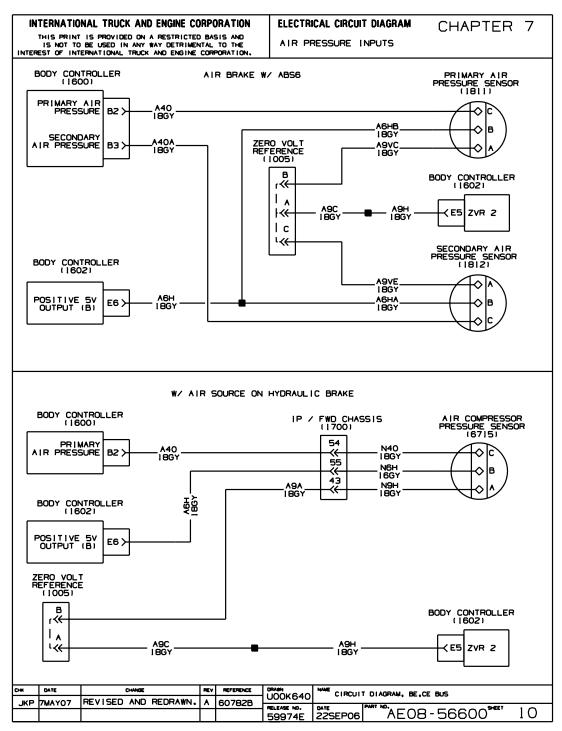


Figure 56 Air Pressure Inputs

7.11. CHANGE TRANSMISSION OIL FILTER LIGHT AND EXHAUST AFTERTREATMENT INDICATORS, P. 11

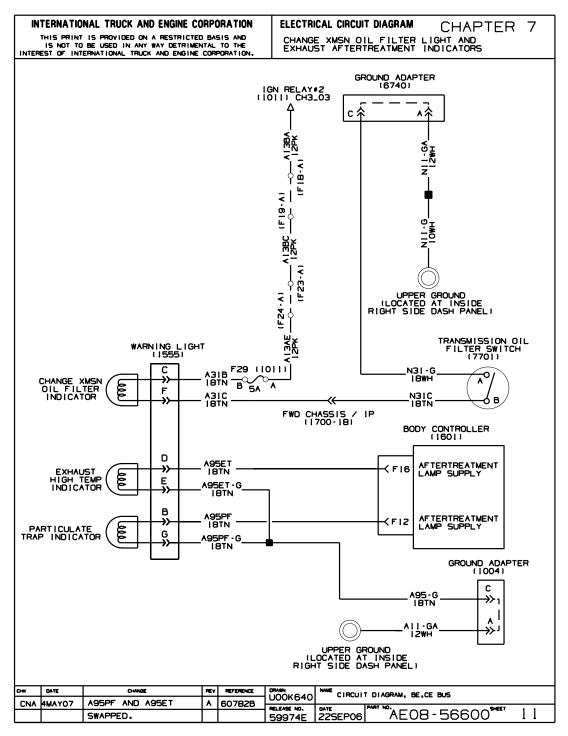


Figure 57 Change Transmission Oil Filter Light and Exhaust Aftertreatment Indicators

7.12. ESPAR COOLANT HEATER WITH RSM TANK, P. 12

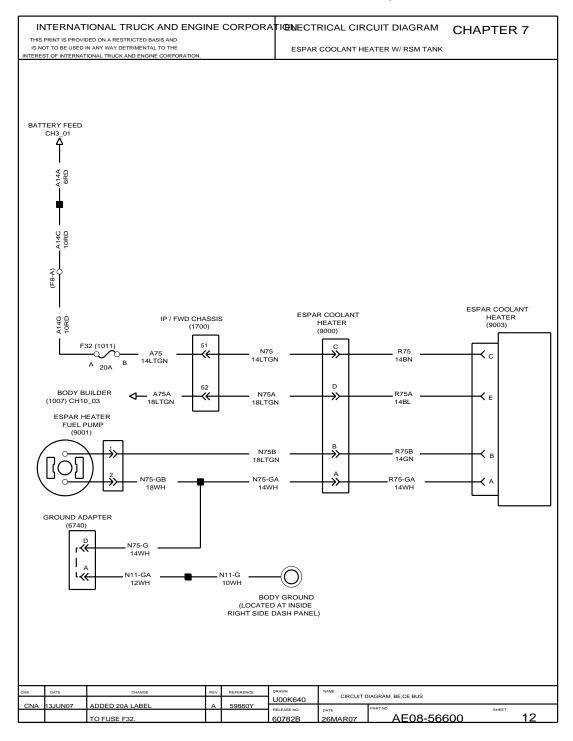


Figure 58 Espar Coolant Heater with RSM Tank

7.13. ESPAR COOLANT HEATER WITH AF FUEL TANK, P. 13

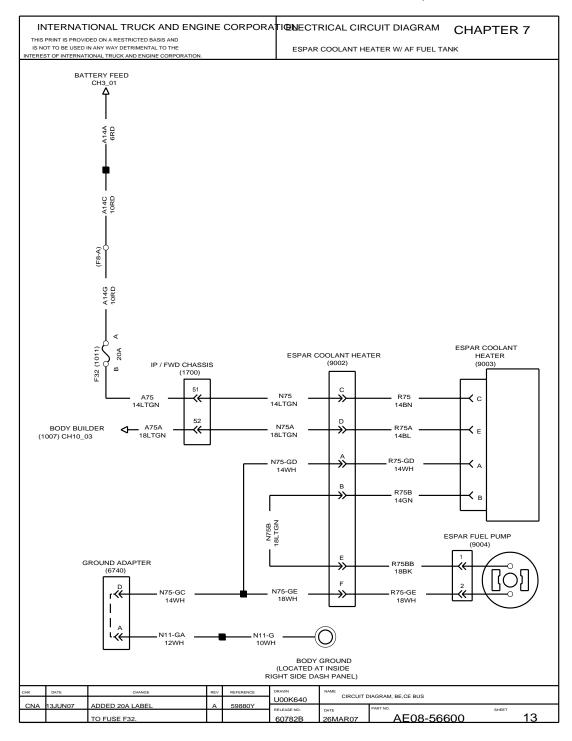


Figure 59 Espar Coolant Heater with AF Fuel Tank

8. CHASSIS ACCESSORIES (CHAPTER 8)

8.1. AIR DRYER AND DRAIN VALVE, P. 1

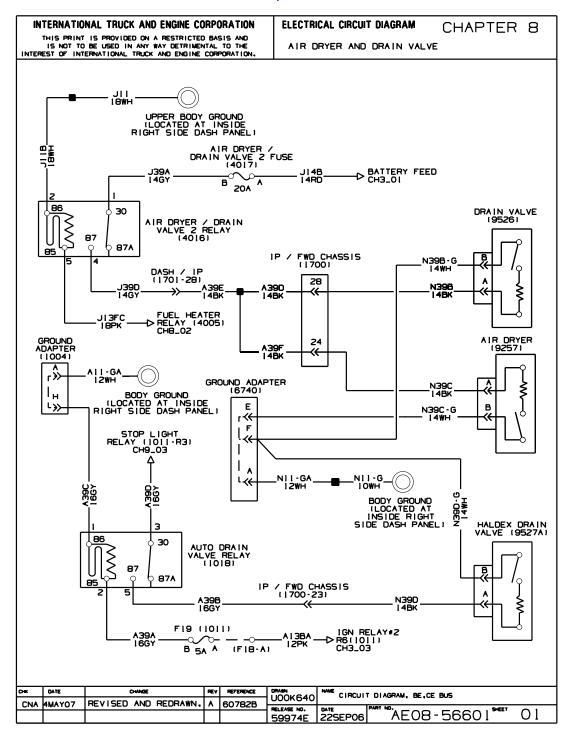


Figure 60 Air Dryer and Drain Valve

8.2. FUEL HEATER SYSTEM, P. 2

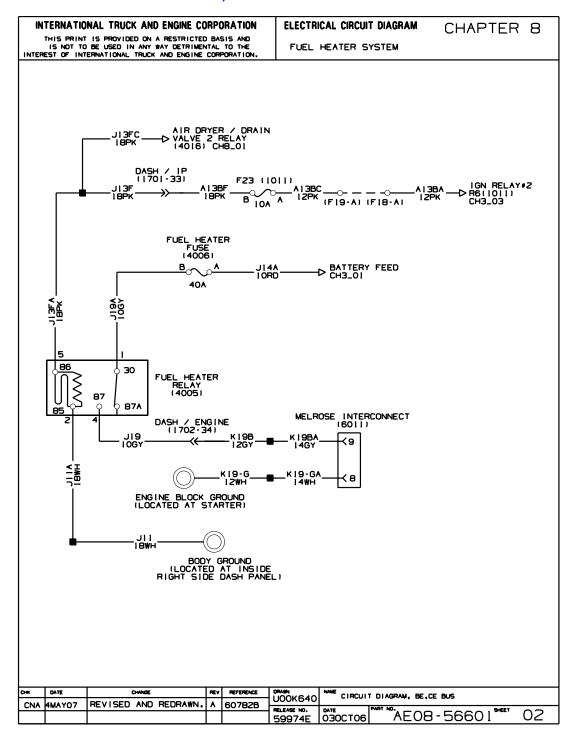


Figure 61 Fuel Heater System

8.3. ABS — HYDRAULIC 16, P. 3

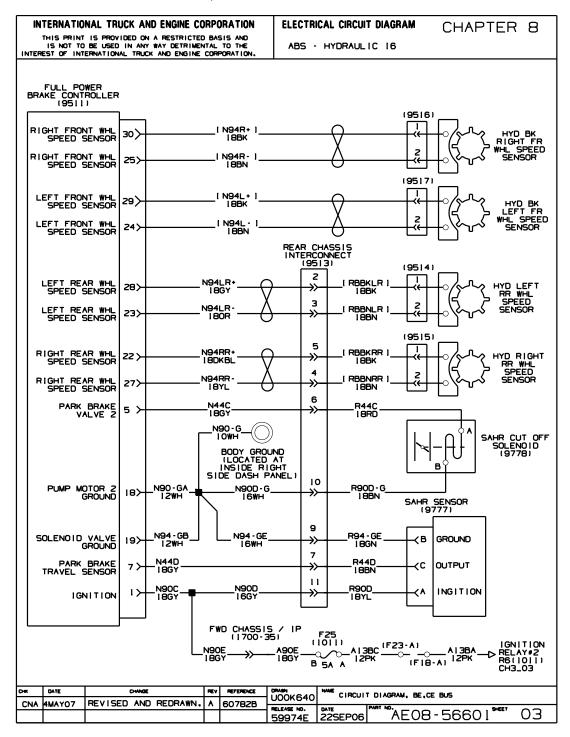


Figure 62 ABS — Hydraulic I6

8.4. ABS — HYDRAULIC 16, P. 4

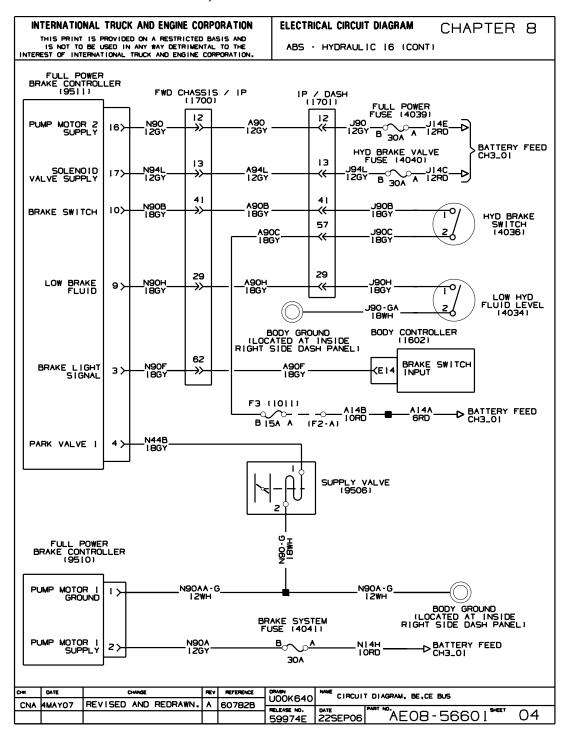


Figure 63 ABS — Hydraulic I6 (Cont.)

8.5. AIR SOLENOID MODULE (OPTIONAL), P. 5

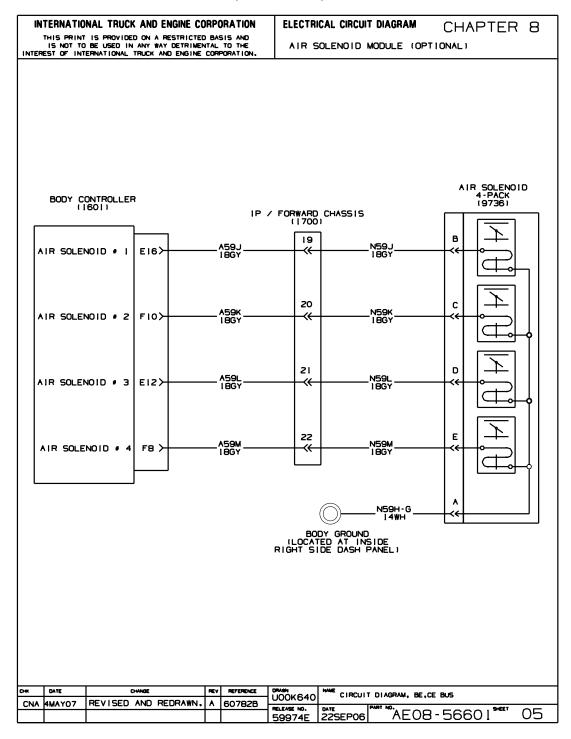


Figure 64 Air Solenoid Module (Optional)

8.6. BENDIX AIR ABS, P. 6

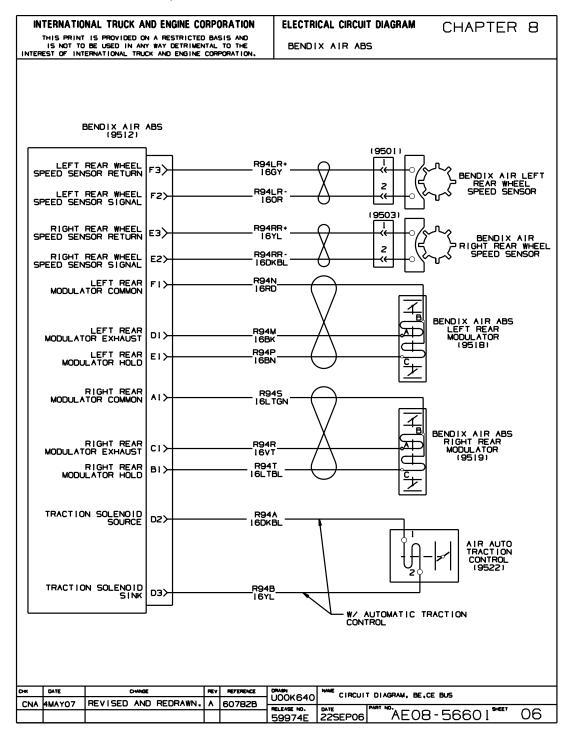


Figure 65 Bendix Air ABS

8.7. BENDIX AIR ABS6, P. 7

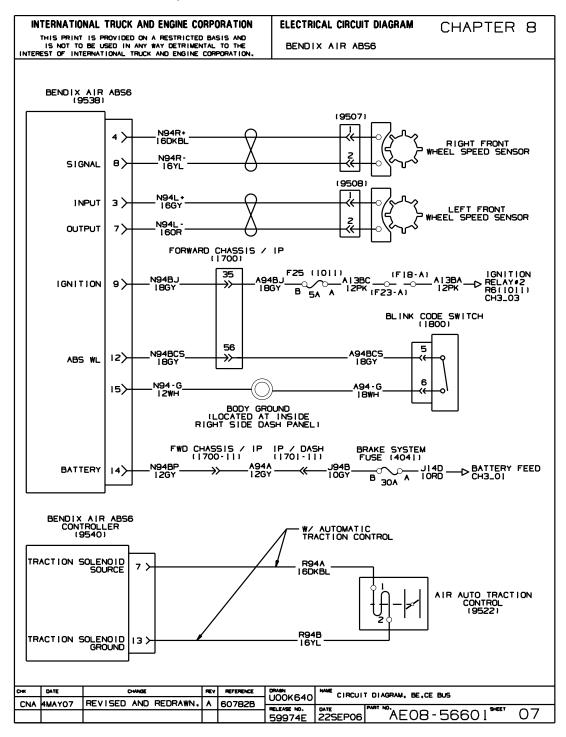


Figure 66 Bendix Air ABS6

8.8. BENDIX AIR ABS6, P. 8

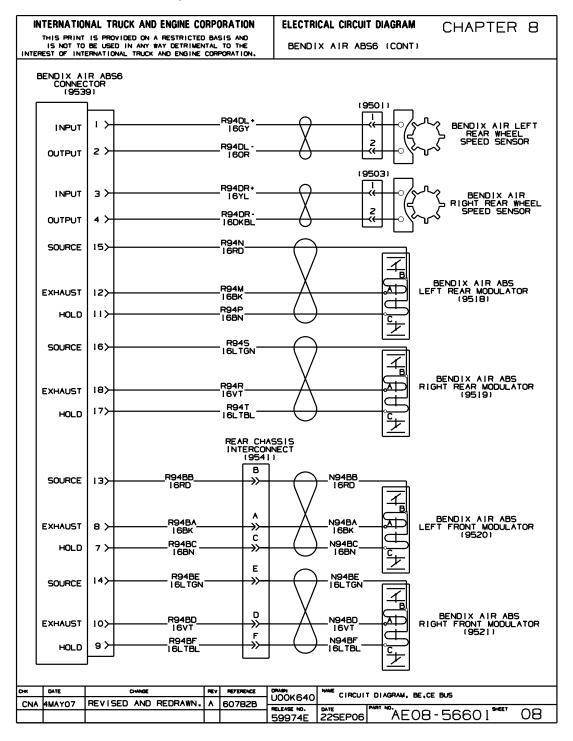


Figure 67 Bendix Air ABS6

8.9. ALLISON LCT TRANSMISSION, P. 9

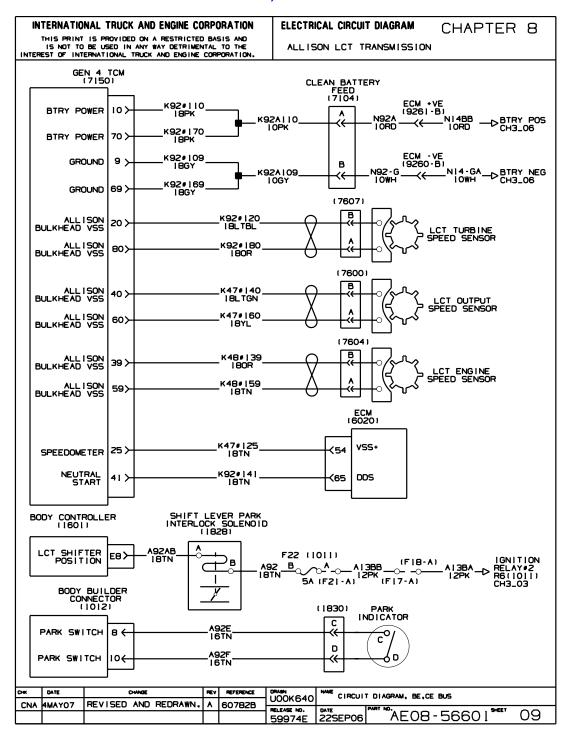


Figure 68 Allison LCT Transmission

8.10. ALLISON LCT TRANSMISSION, P. 10

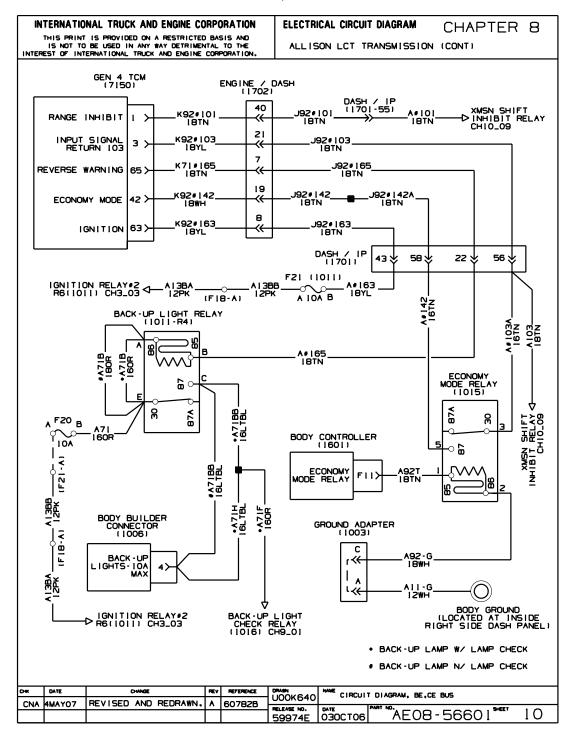


Figure 69 Allison LCT Transmission (Cont.)

8.11. ALLISON LCT TRANSMISSION, P. 11

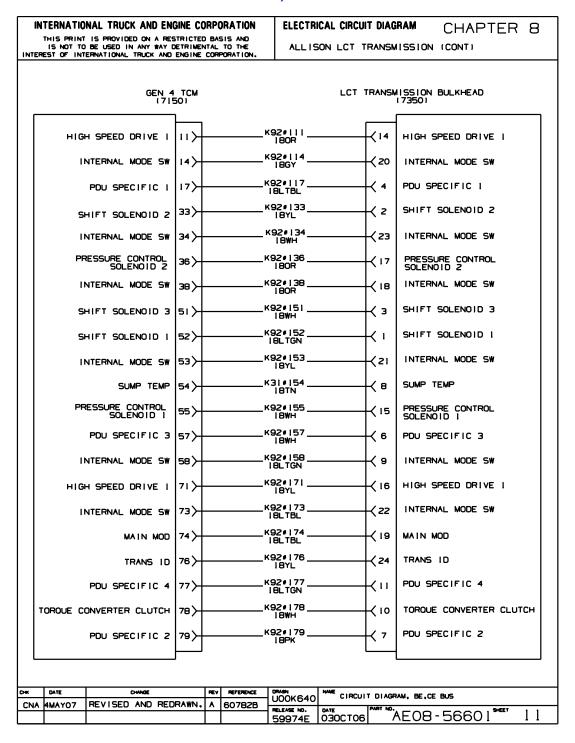


Figure 70 Allison LCT Transmission (Cont.)

8.12. ALLISON WTEC MD TRANSMISSION, P. 12

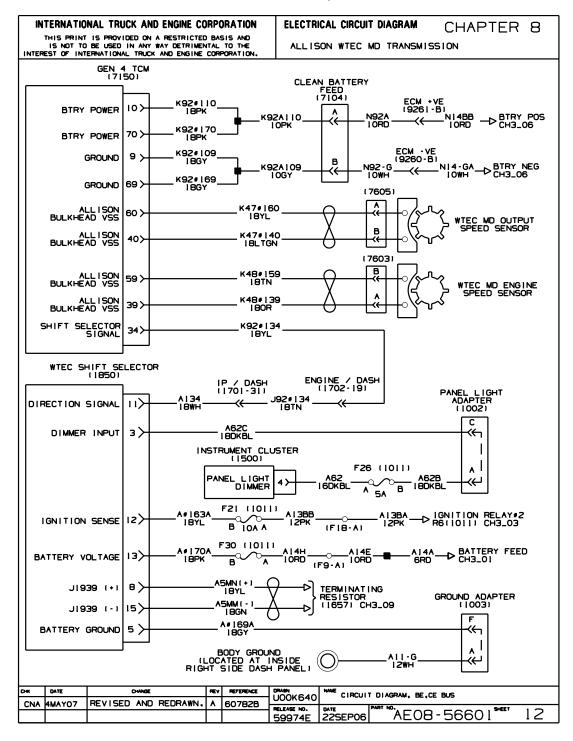


Figure 71 Allison WTEC MD Transmission

8.13. ALLISON WTEC MD TRANSMISSION, P. 13

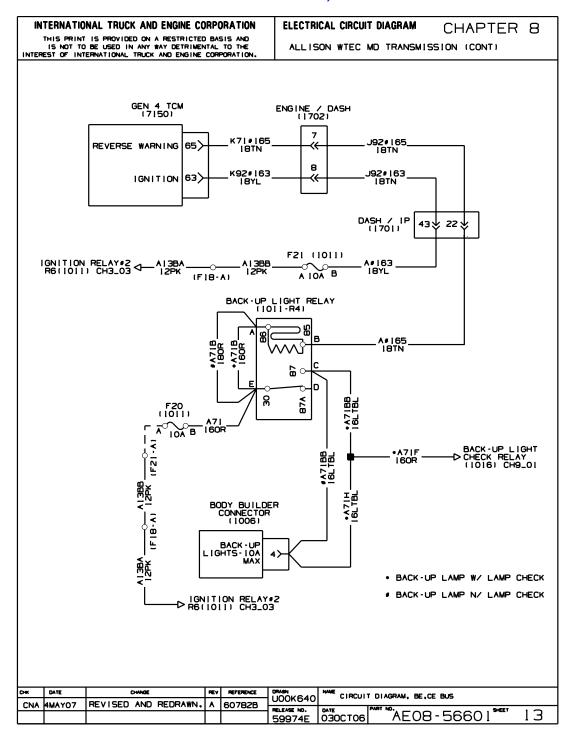


Figure 72 Allison WTEC MD Transmission (Cont.)

8.14. ALLISON WTEC MD TRANSMISSION, P. 14

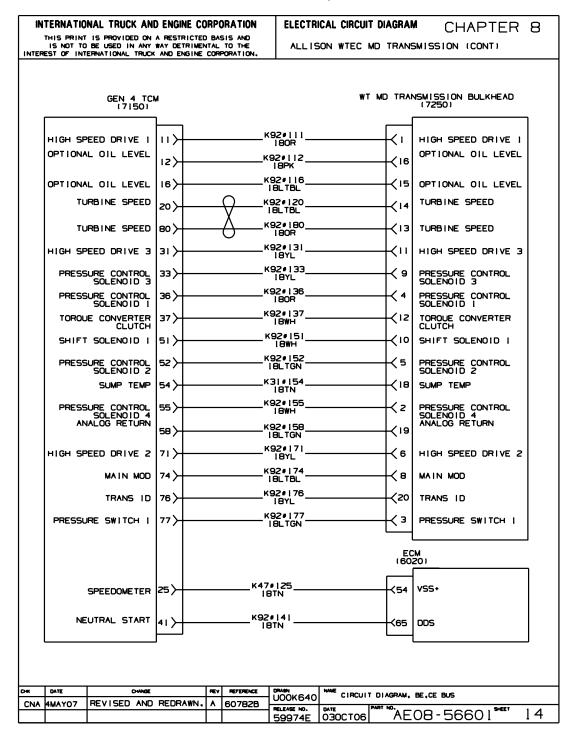


Figure 73 Allison WTEC MD Transmission (Cont.)

8.15. CROSSING GATE, P. 15

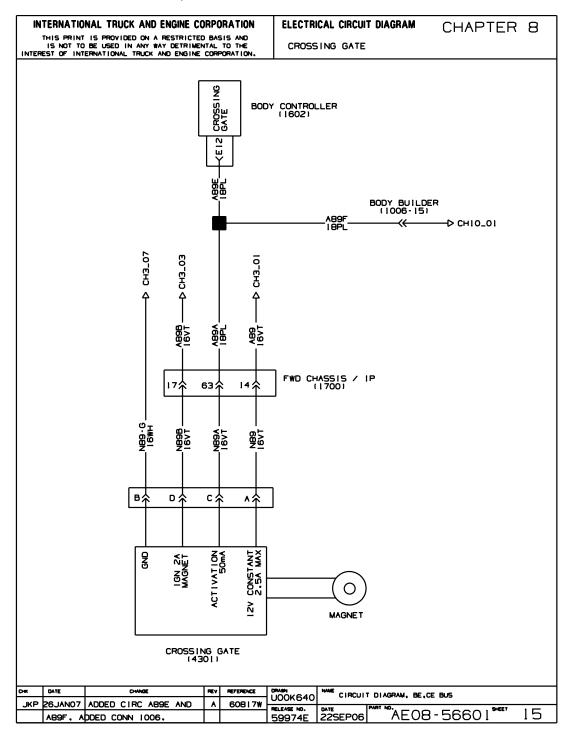


Figure 74 Crossing Gate

8.16. BRAKE MONITORING (OPTIONAL), P. 16

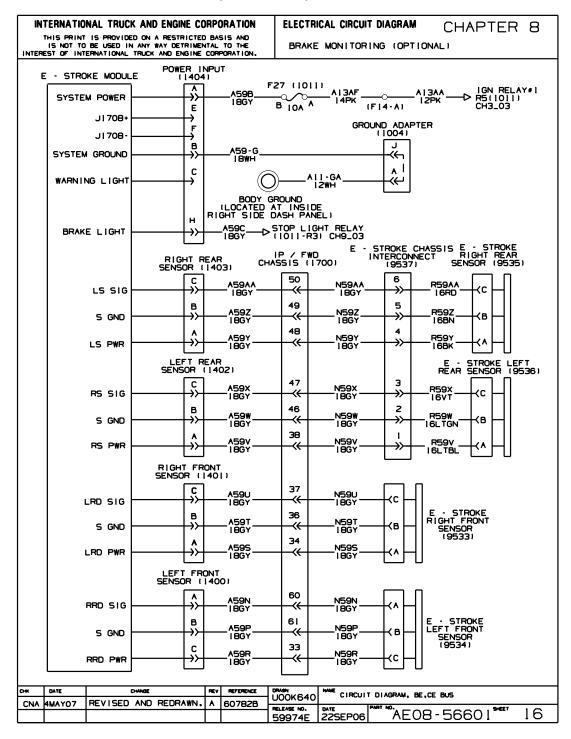


Figure 75 Brake Monitoring (Optional)

9. LIGHT SYSTEMS (CHAPTER 9)

9.1. BACK-UP LIGHTS / EXTERIOR LIGHT CHECK, P. 1

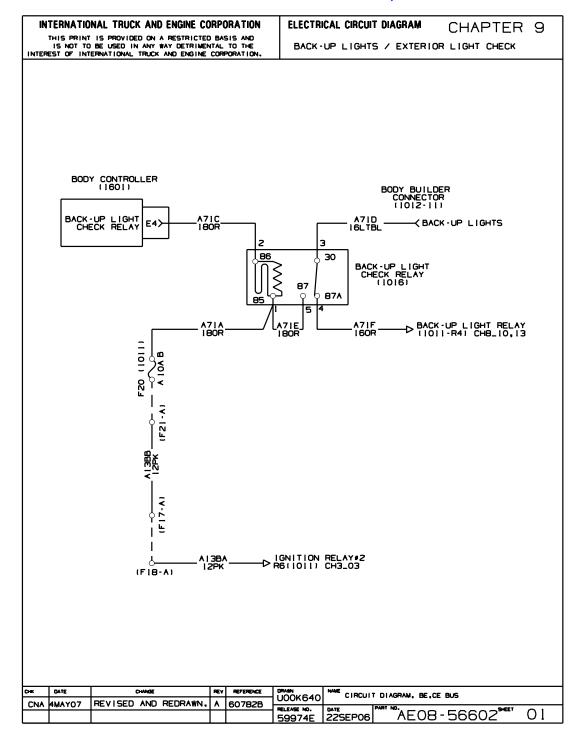


Figure 76 Back-Up Lights / Exterior Light Check

9.2. FOG LIGHTS (OPTIONAL), P. 2

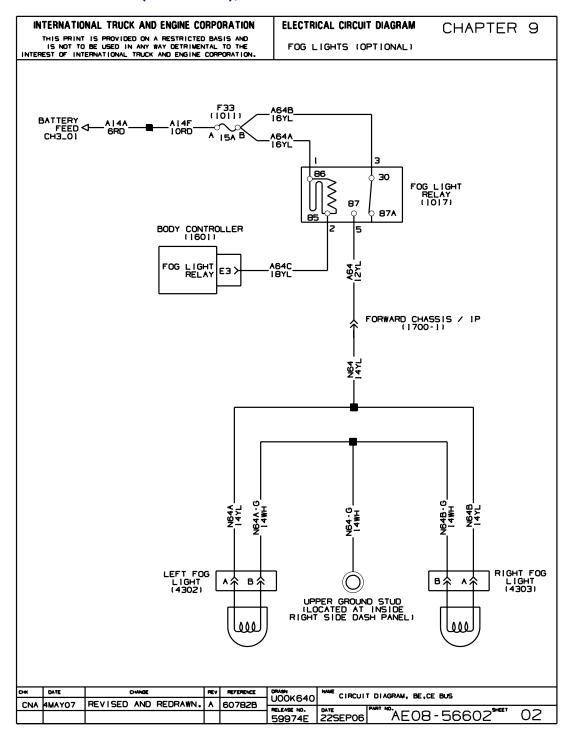


Figure 77 Fog Lights (Optional)

9.3. AIR BRAKE STOP SWITCHES AND STOP LIGHT RELAY, P. 3

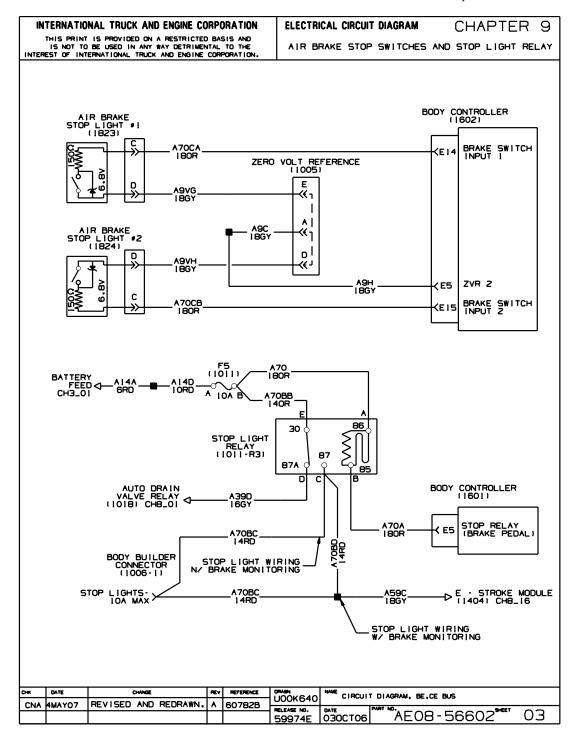


Figure 78 Air Brake Stop Switches and Stop Light Relay

9.4. HEADLIGHTS, MARKER, PARK, TURN, AND STOP LIGHT — N/PEDESTAL MOUNT LIGHTS, P. 4

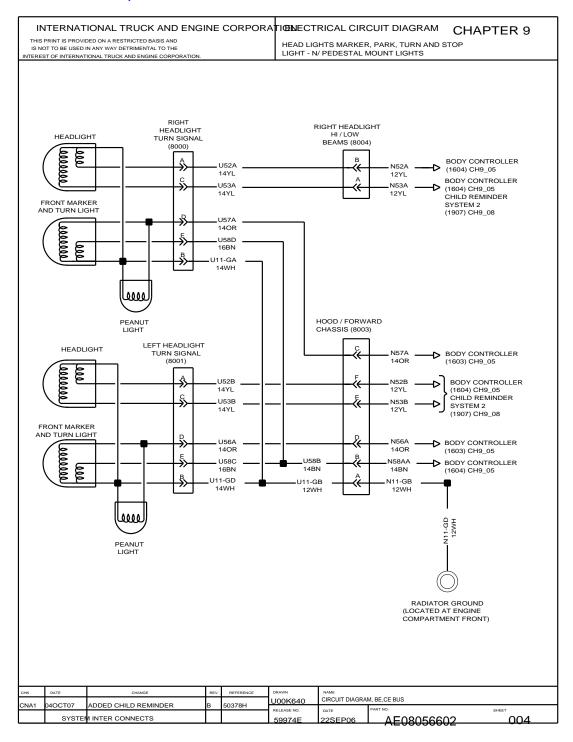


Figure 79 Headlights, Marker, Park, Turn, and Stop Light — N/Pedestal Mount Lights

9.5. HEADLIGHTS, MARKER, PARK, TURN, AND STOP LIGHT, P. 5

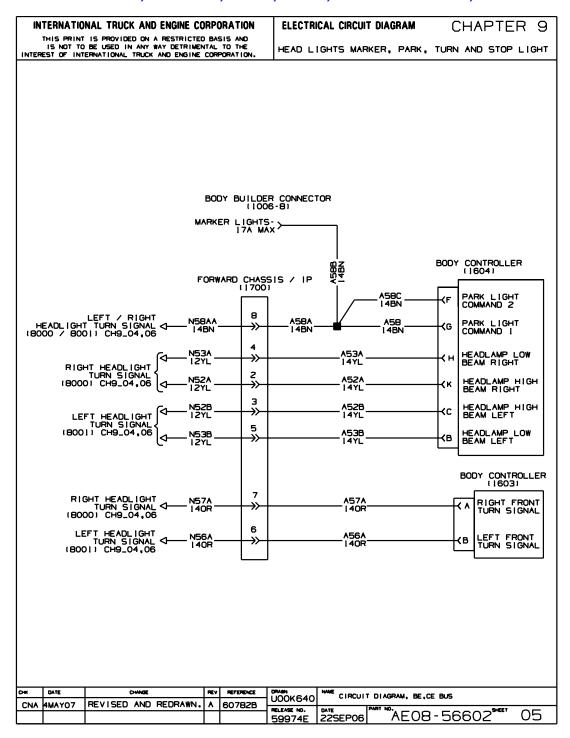


Figure 80 Headlights, Marker, Park, Turn, and Stop Light

9.6. HEADLIGHTS, MARKER, PARK, TURN, AND STOP LIGHT — WITH PEDESTAL MOUNT LIGHTS, P. 6

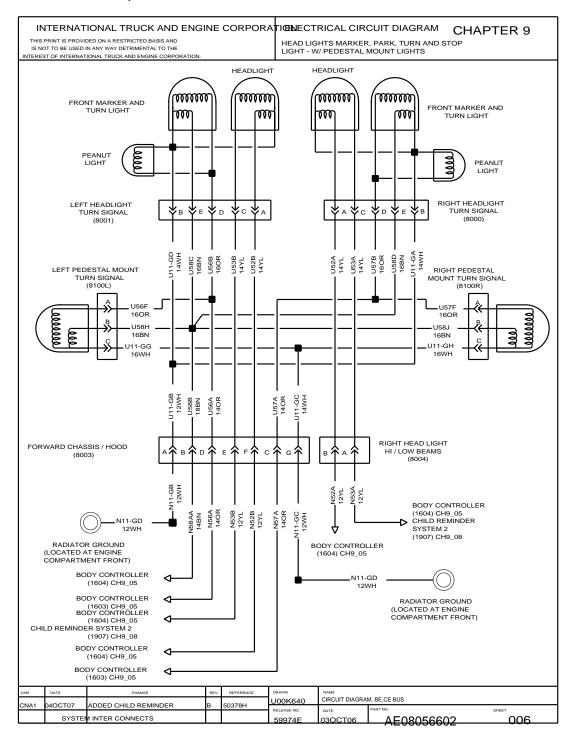


Figure 81 Headlights, Marker, Park, Turn, and Stop Light — with Pedestal Mount Lights

9.7. PANEL LIGHTS, P. 7

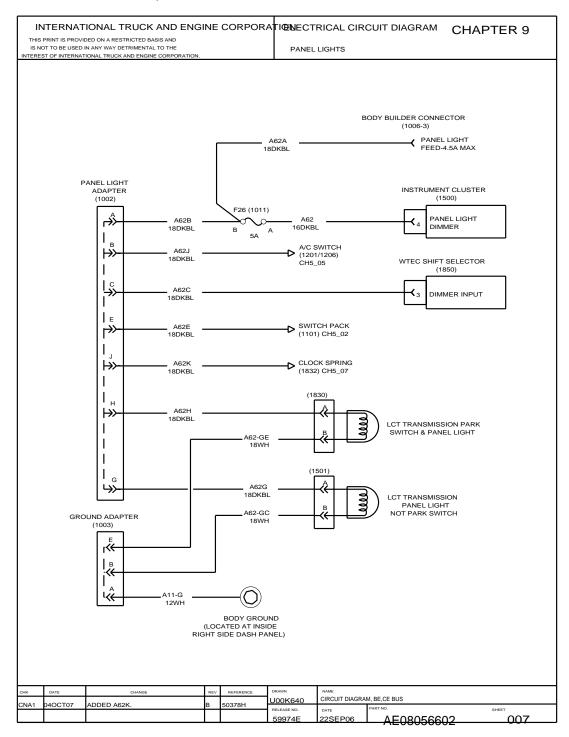


Figure 82 Panel Lights

9.8. CHILD REMINDER SYSTEM, P. 8

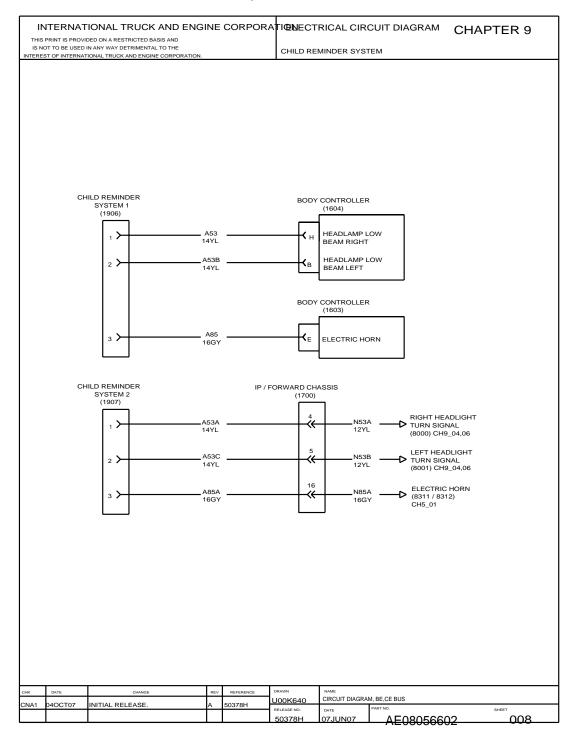


Figure 83 Child Reminder System

10. BODY BUILDER CONNECTION DATA (CHAPTER 10)

10.1. BODY BUILDER CONNECTIONS, P. 1

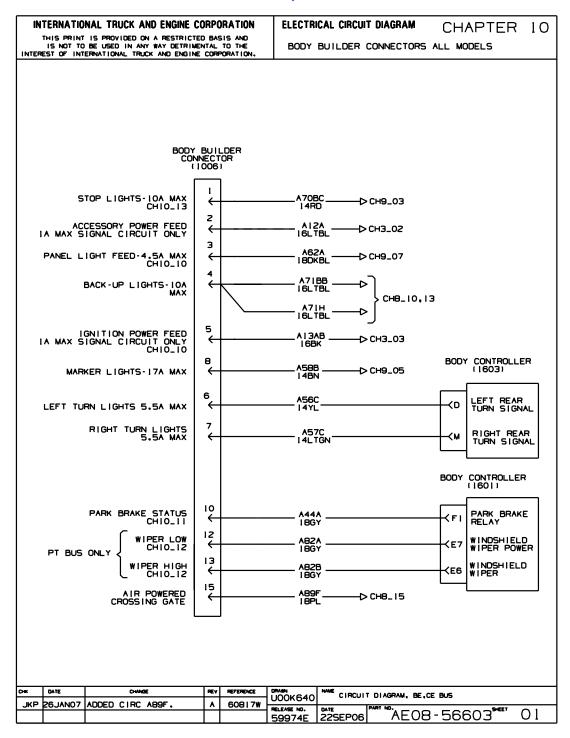


Figure 84 Body Builder Connections

10.2. BODY BUILDER CONNECTIONS, P. 2

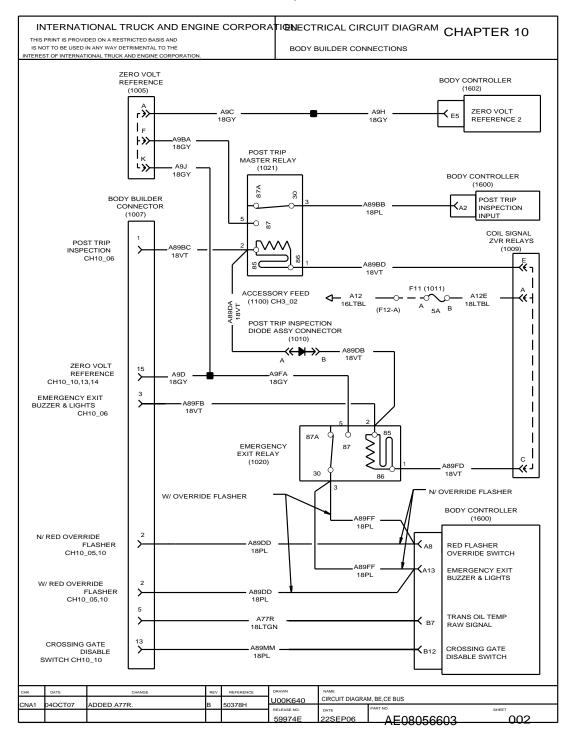


Figure 85 Body Builder Connections

10.3. BODY BUILDER CONNECTIONS, P. 3

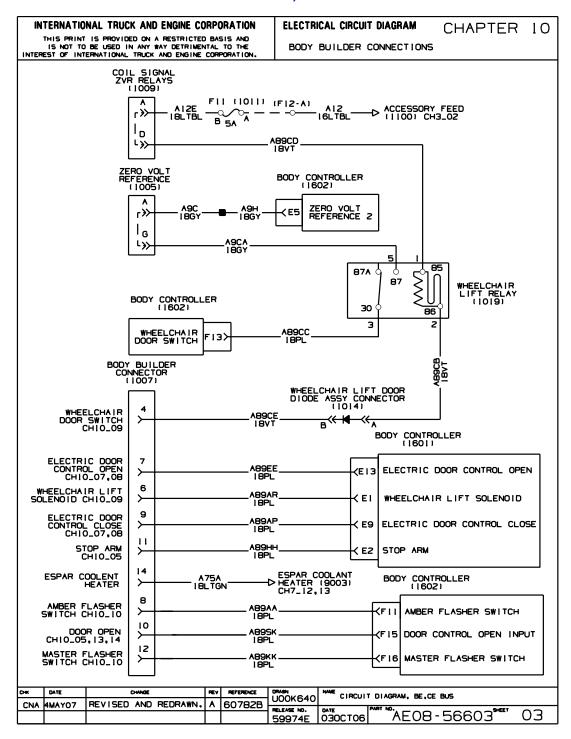


Figure 86 Body Builder Connections

10.4. BODY BUILDER CONNECTIONS, P. 4

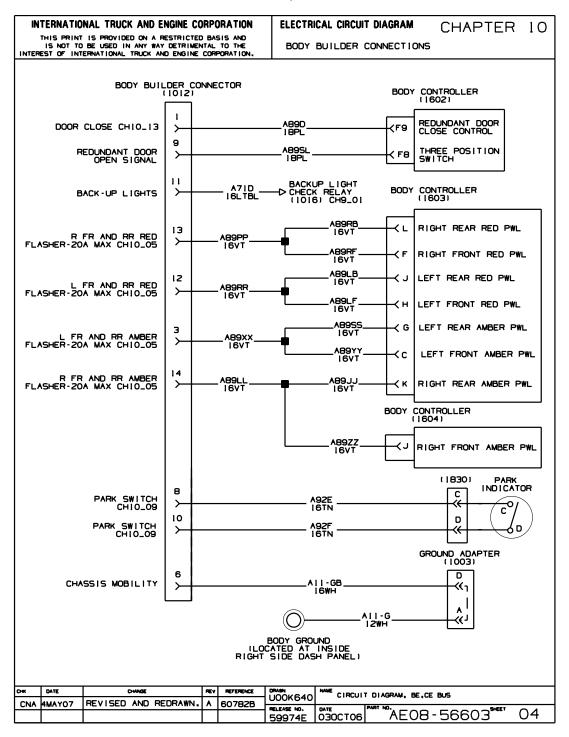


Figure 87 Body Builder Connections

10.5. STOP ARM AND RED / AMBER LIGHTS, P. 5

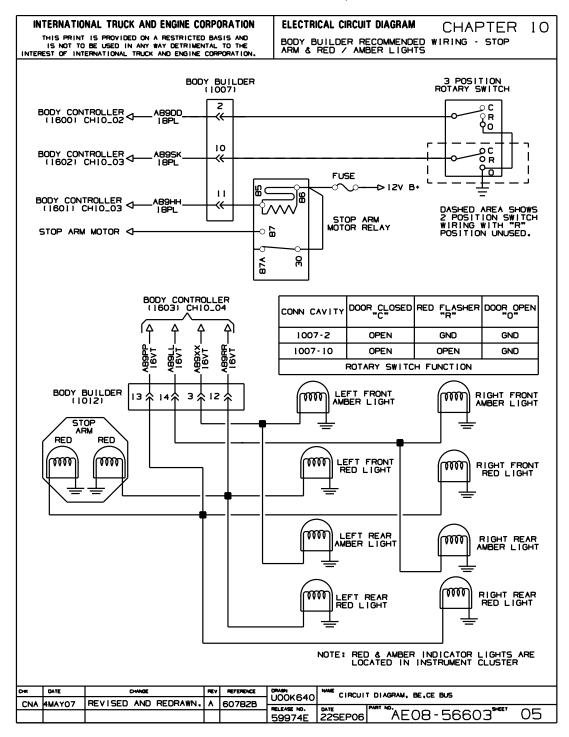


Figure 88 Stop Arm and Red / Amber Lights

10.6. EMERGENCY EXIT BUZZER LIGHTS AND POST TRIP INSPECTION, P. 6

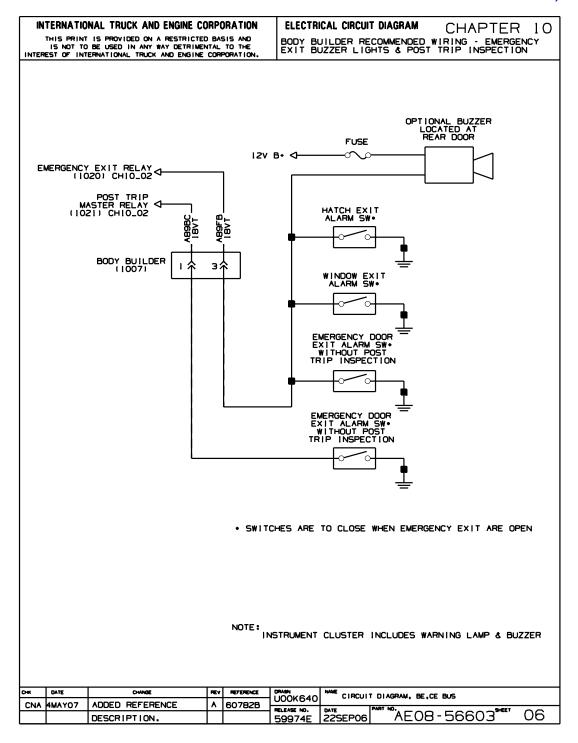


Figure 89 Emergency Exit Buzzer Lights and Post Trip Inspection

10.7. DOOR OPEN / CLOSE WITH ELECTRICAL CONTROL, P. 7

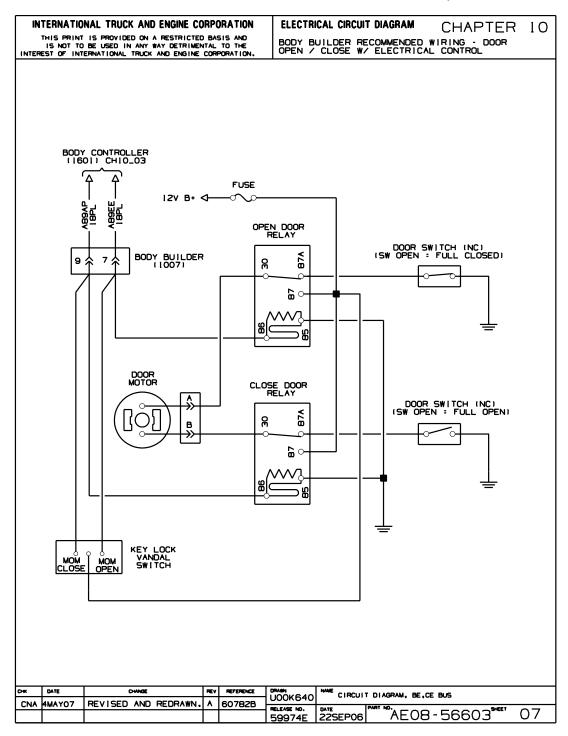


Figure 90 Door Open / Close with Electrical Control

10.8. DOOR OPEN / CLOSE WITH AIR CONTROL, P. 8

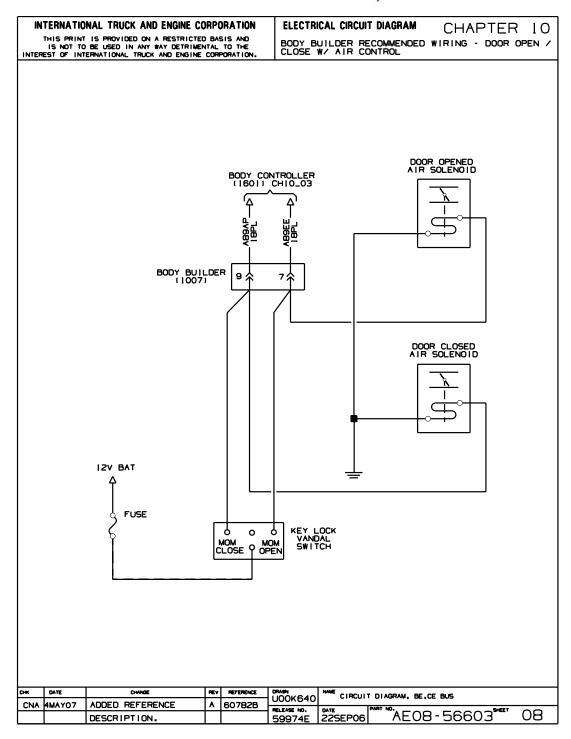


Figure 91 Door Open / Close with Air Control

10.9. WHEELCHAIR LIFT INTERLOCK, P. 9

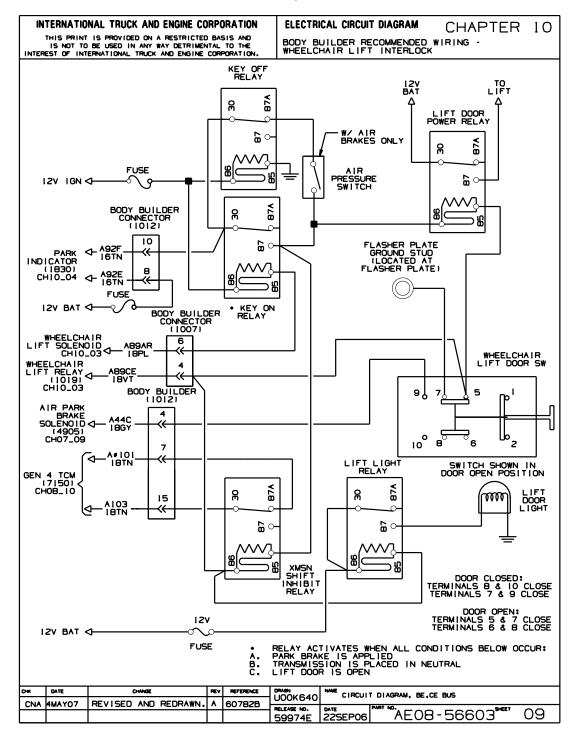


Figure 92 Wheelchair Lift Interlock

10.10. FLASHER SWITCHES, P. 10

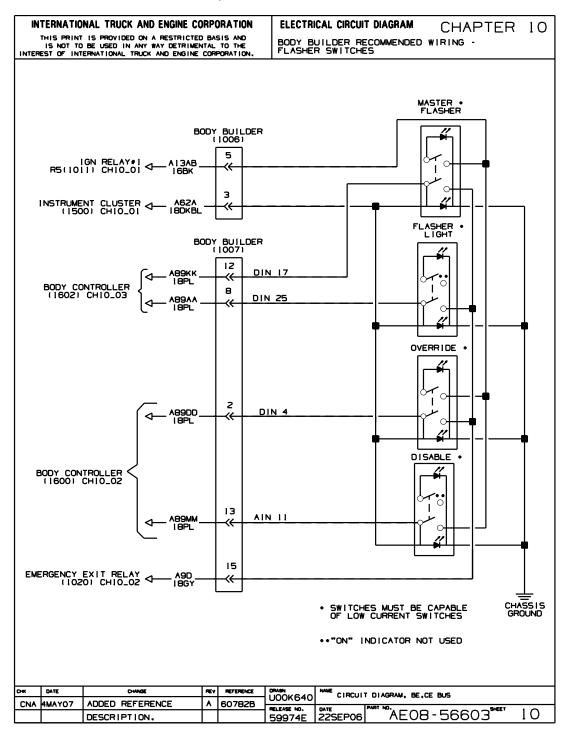


Figure 93 Flasher Switches

10.11. PARK BRAKE STATUS, P. 11

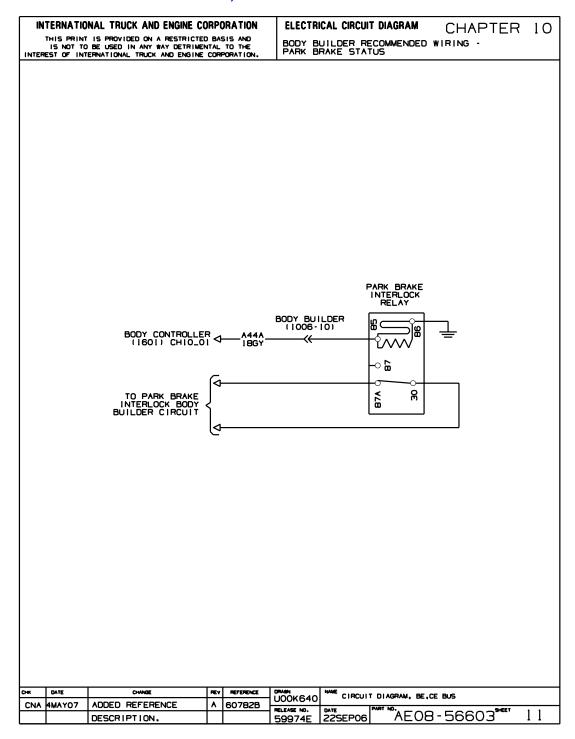


Figure 94 Park Brake Status

10.12. DUAL WIPER MOTORS FOR PT, P. 12

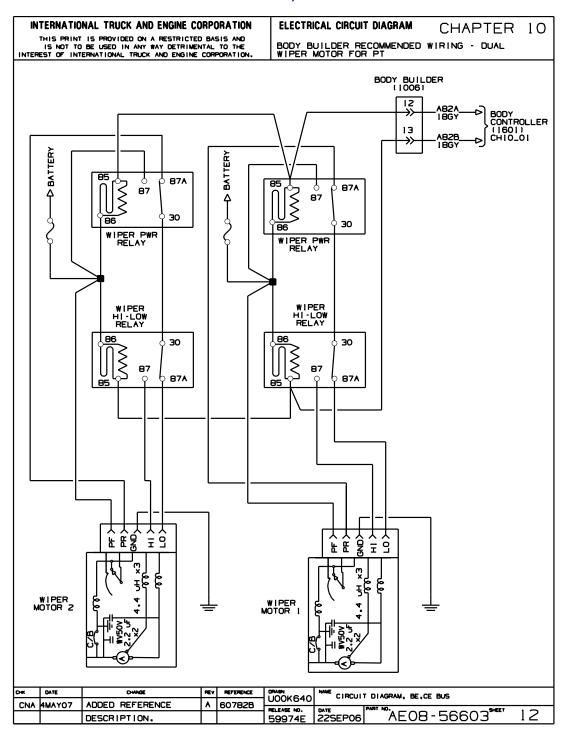


Figure 95 Dual Wiper Motors for PT

10.13. REDUNDANT DOOR CONTROLS, P. 13

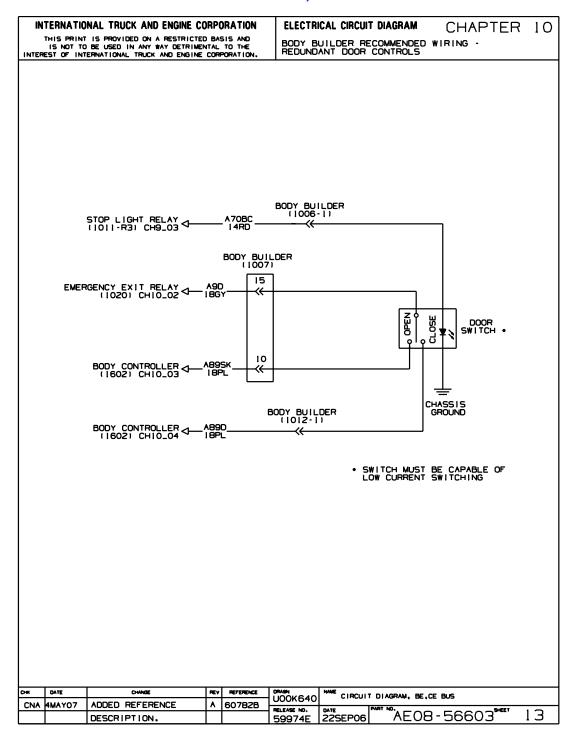


Figure 96 Redundant Door Controls, p. 13

10.14. MANUAL DOOR CONTROLS, P. 14

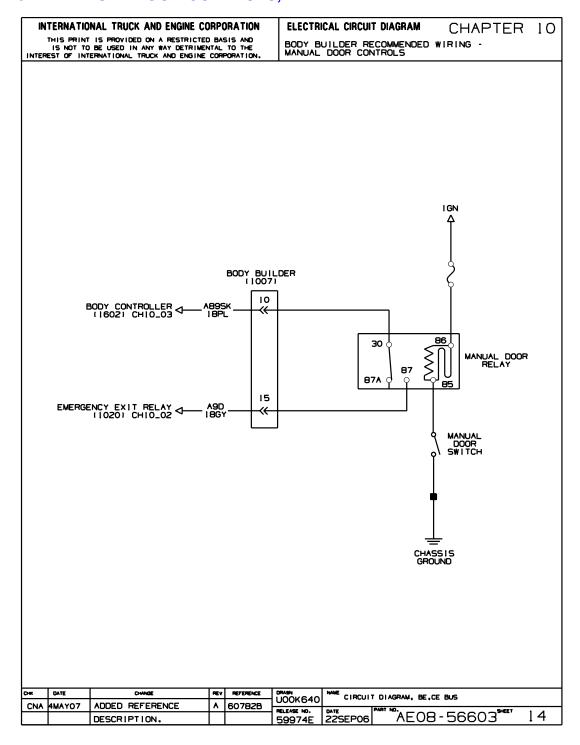


Figure 97 Manual Door Controls

11. CONNECTOR COMPOSITES (CHAPTER 11)

11.1. CONNECTOR COMPOSITES (1002), (1003), (1004), P. 1

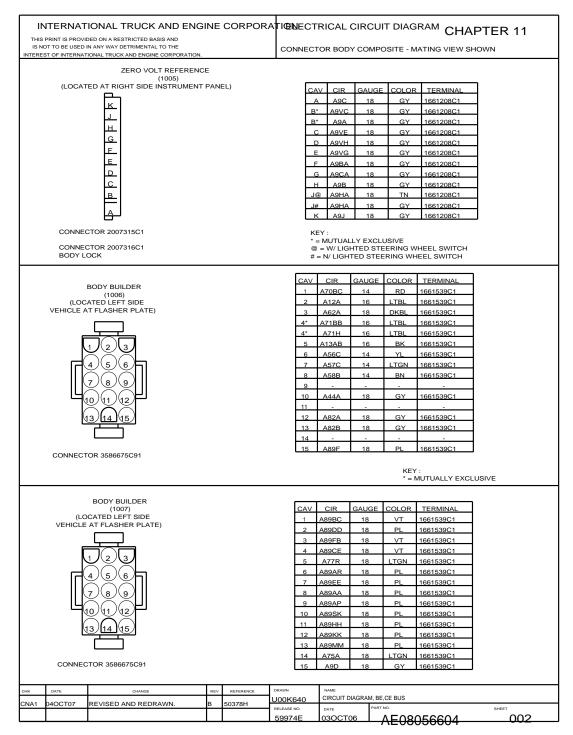


Figure 98 Connector Composites (1002), (1003), (1004)

11.2. CONNECTOR COMPOSITES (1005), (1006), (1007), P. 2

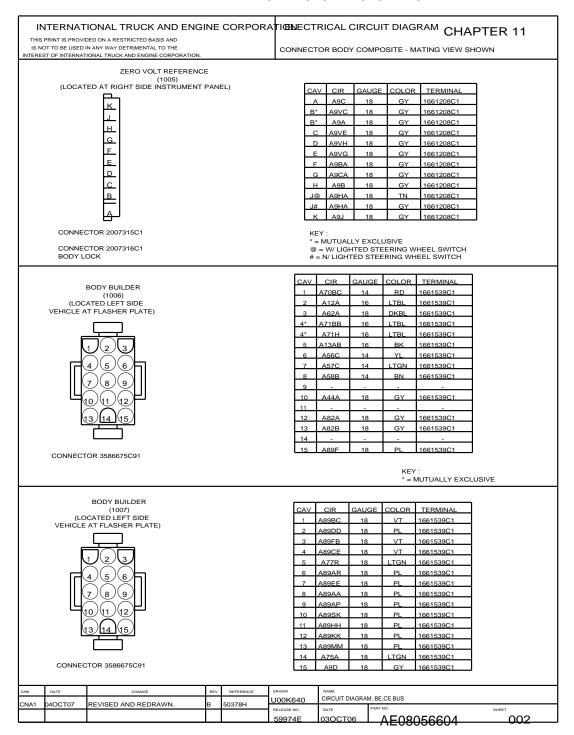


Figure 99 Connector Composites (1005), (1006), (1007)

11.3. CONNECTOR COMPOSITES (1009), (1010), (1011), P. 3

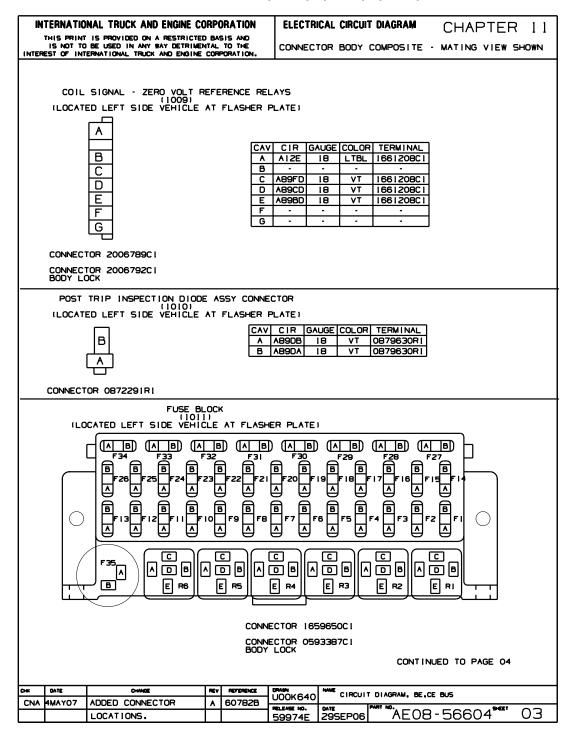


Figure 100 Connector Composites (1009), (1010), (1011)

11.4. CONNECTOR COMPOSITE (1011), P. 4

T IS PROVIDED ON BE USED IN ANY I INTERNATIONAL I	WAY DET	RIMENTAL TO	THE			CONNE	CTOR BO	DY COMPOS	SITE - MA	TING VIE	w shown
		CONTINUE	D FROM F	PAGE 03	3	FUSE	BLOCK (10	11)			
CA	١V	CIR	GAUGE	COLOR	R TERMINA		CAV	CIR	GAUGE	COLOR	TERMINAL
F1-	A	A13AH	16	PK	1661389C1		F20-A	(A13BB)	-	-	1661397C1
F1-I	В	A89B	16	VT	1661389C1		F20-B*	A71	16	OR	1661389C1
F2-	A	A14B	10	RD	1661395C1		F20-B*	A71	16	OR	1661395C1
F2-I	В	A28	18	TN	1661386C1		F2U-B	A71A	18	OR	1661395C1
F3-	A	(A14B)	-	-	1661396C1		F21-A	A13BB	12	PK	1661397C1
F3-l	В	A90C	18	GY	1661386C1		F21-B*	A#163	18	YL	1661392C1
F4-	A	(A14D)	-	-	1661397C1	_		A#163A	18	YL	1661392C1
F4-I	_в ⊢	A26	18	TN	1661395C1	_	F21-B*	A#163	18	YL	1661386C1
	-	A89	16	VT	1661395C1		F22-A	(A13BB)	-	-	1661397C1
F5-	Α	A14D	10	RD	1661397C1	-	F22-B	A92	18	TN	1661386C1
F5-I	в ├	A70	18	OR	1661395C1		F23-A	A13BC	12	PK	1661397C1
 	. 	A70BB	14	OR	1661395C1	\dashv	F23-B	A13BE	16	PK	1661395C1
F6-		(A14D)	40	LTON	1661397C1	\dashv		A13BF	18	PK	1661386C1
F6-I		A77K	12	LTGN	1661395C1		F24-A	(A13BC)	12	PK	1661397C1 1661397C1
F7-	_A	(A14C) A14G	10	RD.	1661396C1	\dashv		A13AE A28A	18		
F7-I	$\overline{}$	A14G A15	16	RD	1661396C1 1661389C1	\dashv	F24-B*	A28A A44	18	TN GY	1661392C1 1661392C1
F8-		A14C	10	RD	1661395C1	_	F24-B*	A28A	18	TN	1661392C1
F8-I		A14CA	12	RD	1661395C1	_	F25-A	(A13BC)	- 10	- 110	1661397C1
F9-		A14E	10	RD	0557377C1		F25-B*	A94BJ	18	GY	1661386C1
F9-I		A98	18	VT	1661386C1		F25-B*	A90E	18	GY	1661386C1
		(A14E)	-	-	1661396C1		F26-A	A62	16	DKBL	1661389C1
F10-	A	A14H	10	RD	1661396C1			A62A	18	DKBL	1661392C1
F10-	В	A14EA	12	RD	1661395C1		F26-B	A62B	18	DKBL	1661392C1
F11-		(A12)	-	_	1661391C1			A13AF	14	PK	1661395C1
		A12A	16	LTBL	1661395C1		F27-A	A13AG	14	PK	1661395C1
F11-E	3*	A12E	18	LTBL	1661395C1		F27-B	A59B	18	GY	1661386C1
F11-E	3*	A12A	16	LTBL	1661389C1			A13AC	16	PK	1661395C1
F12-	Α	A12	16	LTBL	1661391C1		F28-A	A13AH	16	PK	1661395C1
F12-	、 L	A12C	18	LTBL	1661392C1		F28-B	A77J	14	LTGN	1661389C1
F12-	ь	A12D	18	LTBL	1661392C1		F29-A	A13AE	12	PK	1661395C1
F13-	A	A14K	10	RD	1661395C1		F29-B	A31B	18	TN	1661386C1
F13-	В	A14KA	18	RD	1661386C1		F30-A	A14H	10	RD	1661395C1
F14-	<u>,</u> L	A13AA)	-	-	1661397C1		F30-B	A#170A	18	PK	1661386C1
I	+	A13AF	14	PK	1661397C1		F31-A	A97Z	10	VT	1661395C1
F14-		A13AB	16	BK	1661389C1	\dashv	F31-B	A59	18	GY	1661395C1
F15-		A13AA	12	PK	1661397C1	\dashv		A23	16	TN	1661395C1
F15-E		A28B	18	TN	1661386C1	\dashv	F32-A	A14G	10	RD	1661395C1
F15-E	3%	A13C	18	PK	1661286C1	\dashv	F32-B	A75	14	LTGN	1661389C1
F15-E	3@ 	A13C	18	PK	1661392C1	\dashv	F33-A	A14F	10	RD VI	1661395C1
<u> </u>	-	A28B	18	TN	1661392C1	\dashv	F33-B	A64A	16	YL	1661395C1
F16-	Αť	A13AA)	16	- PK	1661397C1	\dashv	F24 A	A64B A13AG	16	YL PK	1661395C1
F40	$\overline{}$	A13AC A13AD	16	PK PK	1661397C1	\dashv	F34-A		14		1661389C1 1661386C1
F16-	-		16	PK		\dashv	F34-B	A87A	18	GY	1001386C1
F17-	ΑĽ	A13BA)	12	- PV	1661397C1	\dashv	F35-A	 		<u> </u>	
F17-	. 	A13BB A97UA	12	PK VT	1661397C1 1661386C1	\dashv	F35-B				
F17-		A13BA	12	PK	1661397C1	\dashv		KEY			
F18-		A99F	18	VT	1661386C1	\dashv		* = N	JUTUALLY		
1-10-		A13BA)	-	-	1661397C1	\dashv			COMPASS		
F19-	A L	A13BC	12	PK	1661397C1	\neg			AWARE N. W/ AWAR		
F19-	В	A39A	16	GY	1661389C1	\neg		9 -	.,		
<u> </u>	•							C	CONTINUE	D TO PAG	GE 05
		CHANGE		REV		DRAWN JOOK640	NAME	DIAGRAM, BE,CI			

Figure 101 Connector Composite (1011) (Cont.)

11.5. CONNECTOR COMPOSITE (1011), P. 5

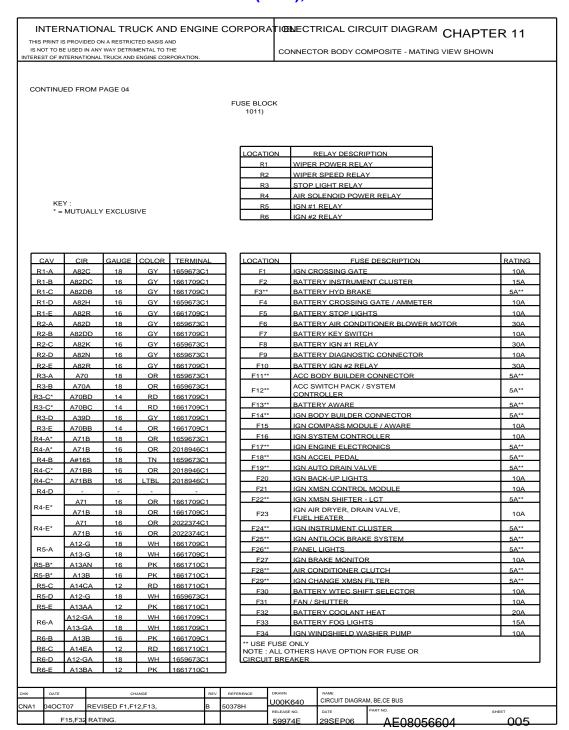


Figure 102 Connector Composite (1011) (Cont.)

11.6. CONNECTOR COMPOSITES (1012), (1014F), P. 6

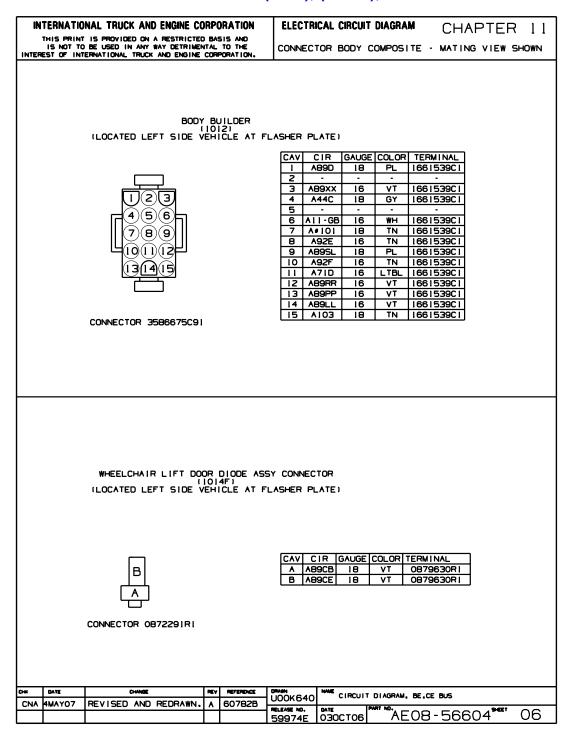


Figure 103 Connector Composites (1012), (1014F)

11.7. CONNECTOR COMPOSITES (1015), (1016), (1017), (1018), P. 7

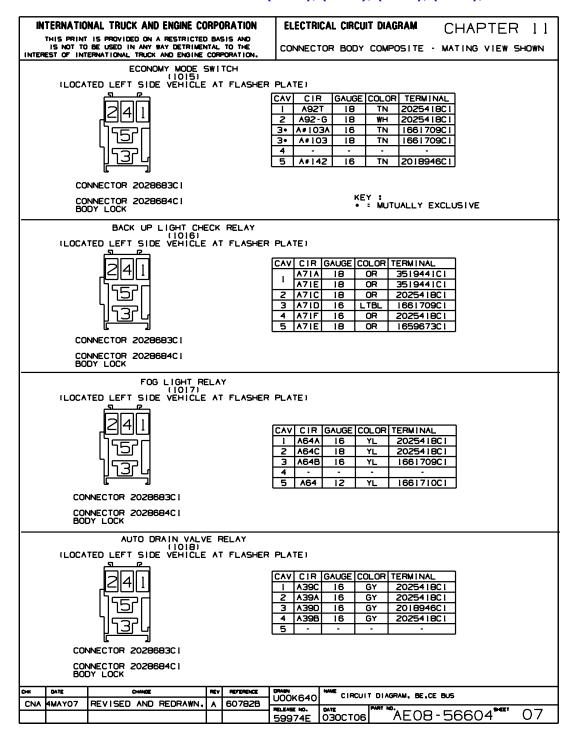


Figure 104 Connector Composites (1015), (1016), (1017), (1018)

11.8. CONNECTOR COMPOSITES (1019), (1020), (1021), (1023), (1028), P. 8

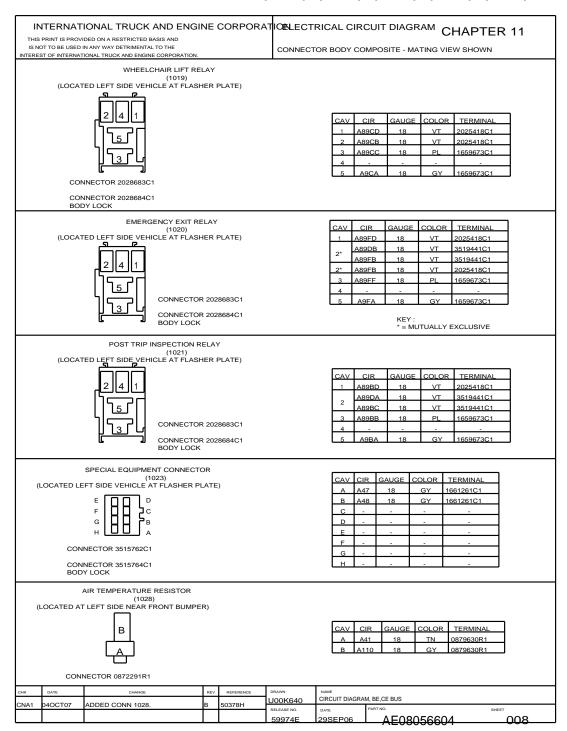


Figure 105 Connector Composites (1019), (1020), (1021), (1023), (1028)

11.9. CONNECTOR COMPOSITES (1029), (1100), (1101), (1104), (1105), P. 9

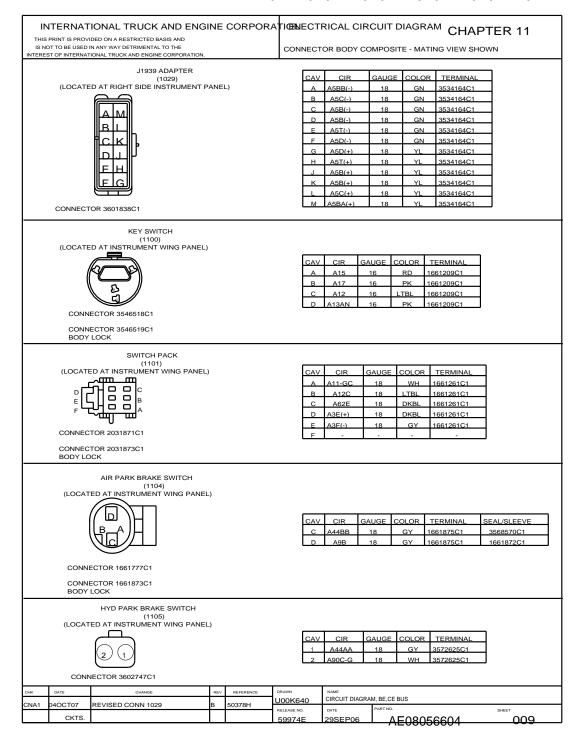


Figure 106 Connector Composites (1029), (1100), (1101), (1104), (1105)

11.10. CONNECTOR COMPOSITES (1200), (1201), (1203), (1204), P. 10

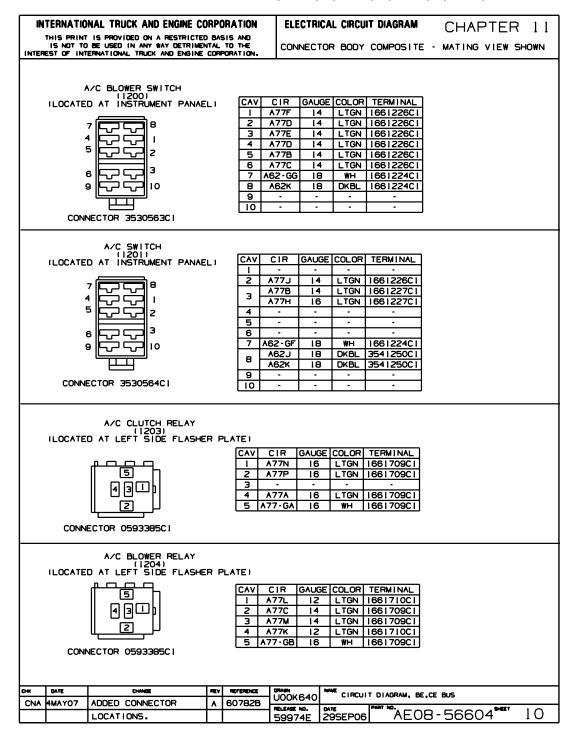


Figure 107 Connector Composites (1200), (1201), (1203), (1204)

11.11. CONNECTOR COMPOSITES (1400), (1401), (1402), P. 11

INTERNATIONAL TRUCK AND ENGINE CORPORATION

ELECTRICAL CIRCUIT DIAGRAM

CHAPTER 11

THIS PRINT IS PROVIDED ON A RESTRICTED BASIS AND IS NOT TO BE USED IN ANY WAY DETRIMENTAL TO THE INTEREST OF INTERNATIONAL TRUCK AND ENGINE CORPORATION.

CONNECTOR BODY COMPOSITE - MATING VIEW SHOWN

E - STROKE LEFT FRONT SENSOR (1400) (LOCATED AT INSIDE MIDDLE DASH PANEL)



CONNECTOR 1667741C1 CONNECTOR 1667771C1 BODY LOCK

CAV	CIR	GAUGE	COLOR	TERMINAL	SEAL/SLEEVE
A	A59N	18	GY	1661875C1	1661872C1
	A59P			1661875C1	1661872C1
С	A59R	18	GY	1661875C1	1661872C1

E - STROKE RIGHT FRONT SENSOR (1401) (LOCATED AT INSIDE MIDDLE DASH PANEL)



CONNECTOR 1667741C1 CONNECTOR 1667771C1 BODY LOCK

CAV	CIR	GAUGE	COLOR	TERMINAL	SEAL/SLEEVE
A	A59S	18	GY	1661875C1	1661872C1
В	A59T	18	GY	1661875C1	1661872C1
С	∧59 ∪	18	GY	1661875C1	1661872C1

E - STROKE LEFT REAR SENSOR (1402) (LOCATED AT INSIDE MIDDLE DASH PANEL)



CONNECTOR 1667741C1 CONNECTOR 1667771C1 BODY LOCK

CAV	Ē	GAUGE	COLOR	TERMINAL	SEAL/SLEEVE
>	A59V	18	GY	1661875C1	1661872C1
В	A59W	18	GY	1661875C1	166187201
C	A59X	18	GY	1661875C1	1661872C1

CHK	DATE	ADDED CONNECTOR		PEFERENCE	DRAMI	CIRCUIT DIAGRAM. BE.CE BUS				
CNA	4MAYO7			A 60782B	U00K640					
0.4.7		1.0020 00.1.120.0.1	7, 0		RELEASE NO.	DATE PART NO SHEET 1 1				
		LOCATIONS.				^{DATE} 29SEP06 AE08 - 56604 1 1				

Figure 108 Connector Composites (1400), (1401), (1402)

11.12. CONNECTOR COMPOSITES (1403), (1404), (1500), (1501), P. 12

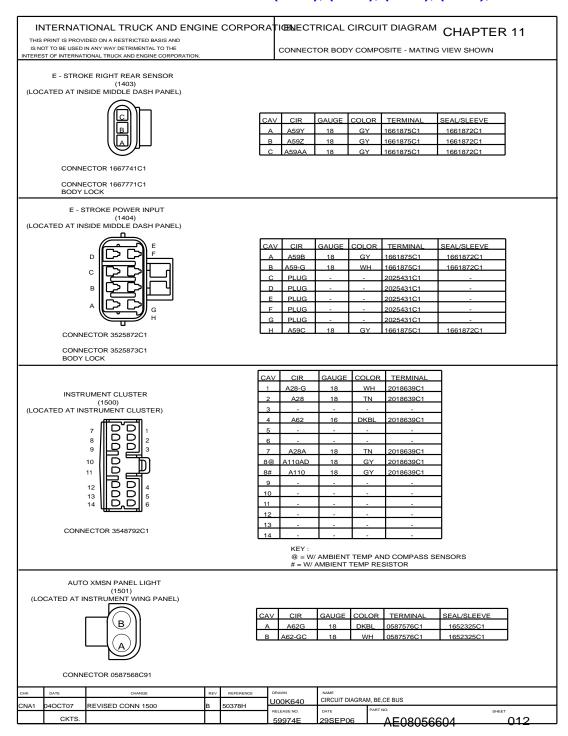


Figure 109 Connector Composites (1403), (1404), (1500), (1501)

11.13. CONNECTOR COMPOSITES (1505), (1555), (1600), P. 13

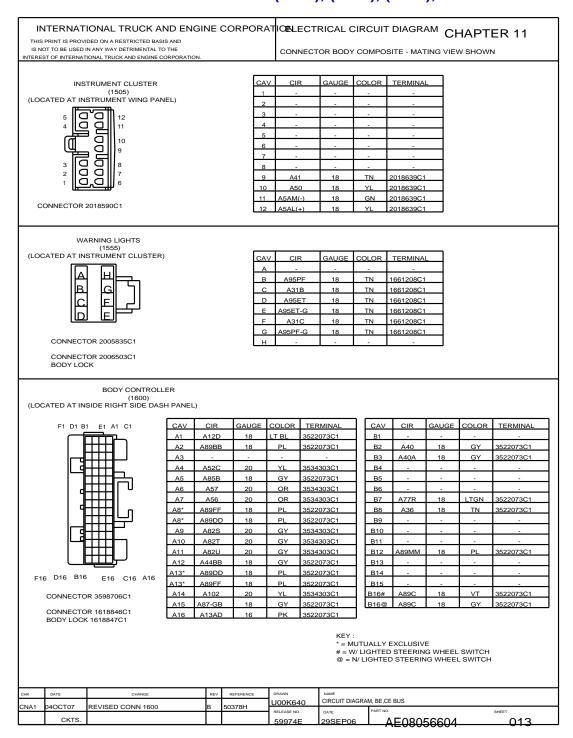


Figure 110 Connector Composites (1505), (1555), (1600)

11.14. CONNECTOR COMPOSITES (1601), (1602), (1603), P. 14

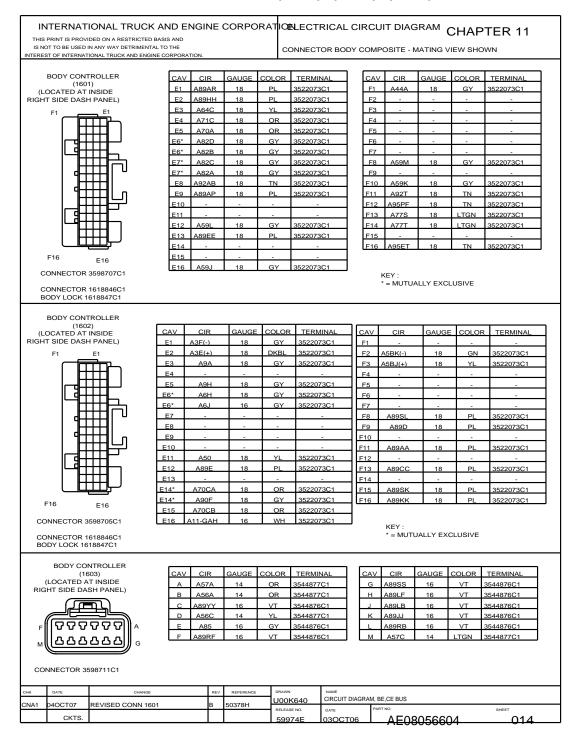


Figure 111 Connector Composites (1601), (1602), (1603)

11.15. CONNECTOR COMPOSITES (1604), (1650), (1657M), P. 15

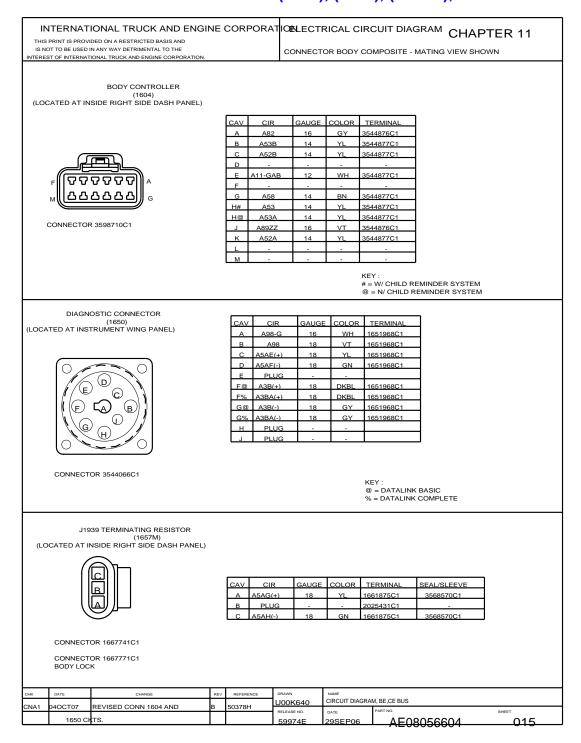


Figure 112 Connector Composites (1604), (1650), (1657M)

11.16. CONNECTOR COMPOSITES (1660), (1661), P. 16

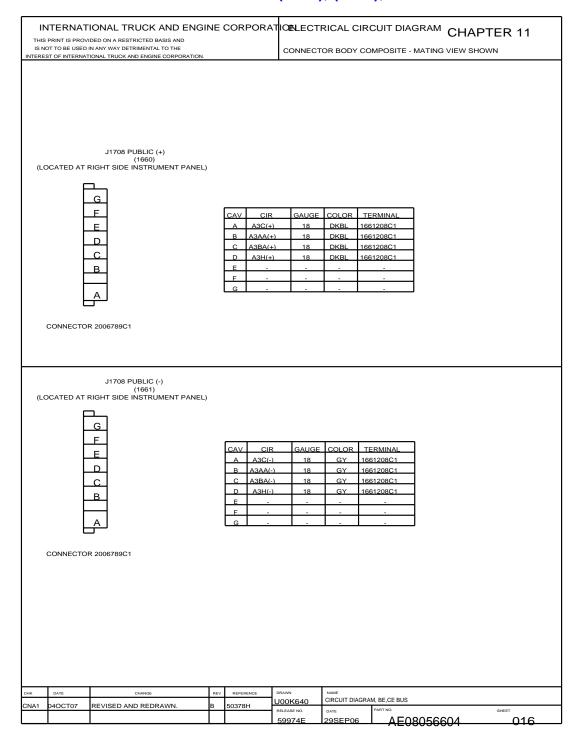


Figure 113 Connector Composites (1660), (1661)

11.17. CONNECTOR COMPOSITES (1700), P. 17

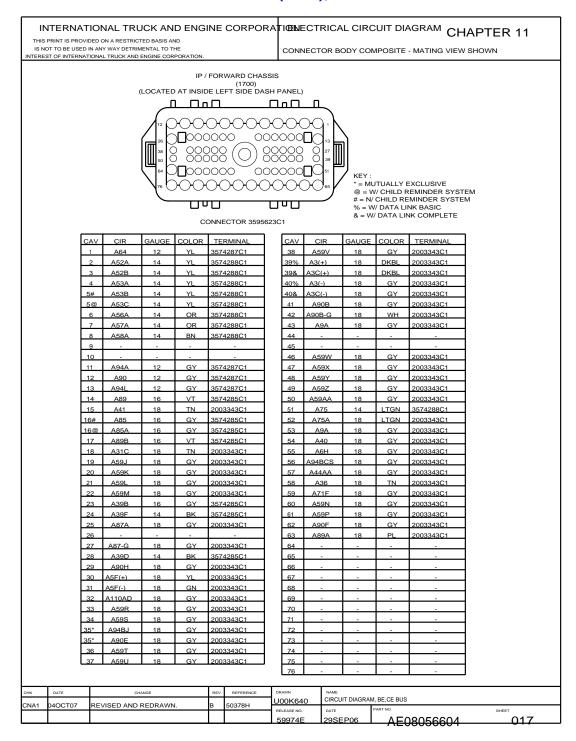


Figure 114 Connector Composites (1700)

11.18. CONNECTOR COMPOSITES (1700), P. 18

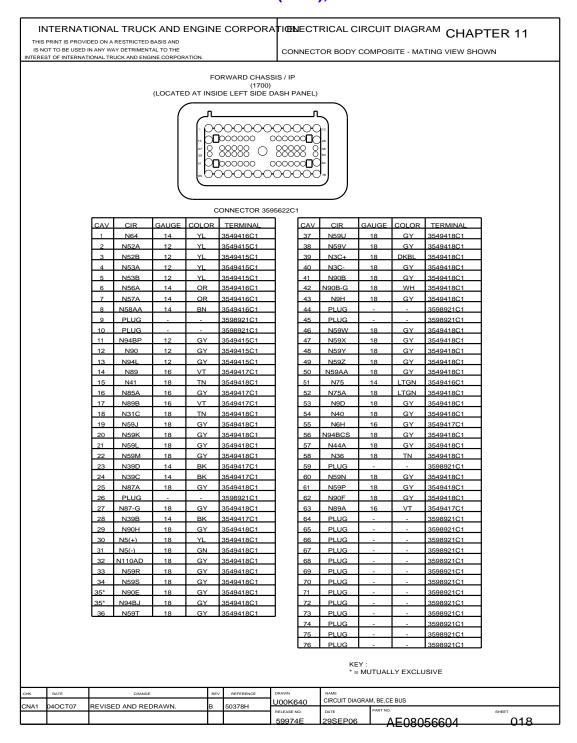


Figure 115 Connector Composites (1700)

11.19. CONNECTOR COMPOSITES (1701), P. 19

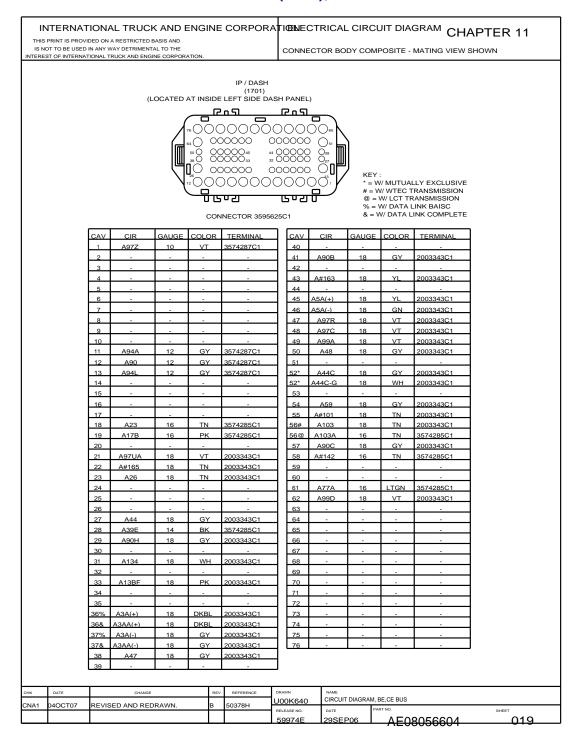


Figure 116 Connector Composites (1701)

11.20. CONNECTOR COMPOSITES (1701), P. 20

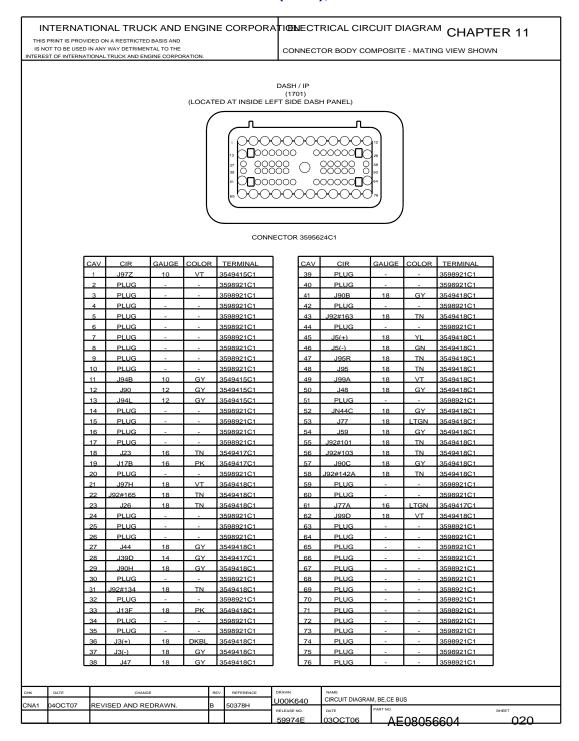


Figure 117 Connector Composites (1701)

11.21. CONNECTOR COMPOSITES (1702), P. 21

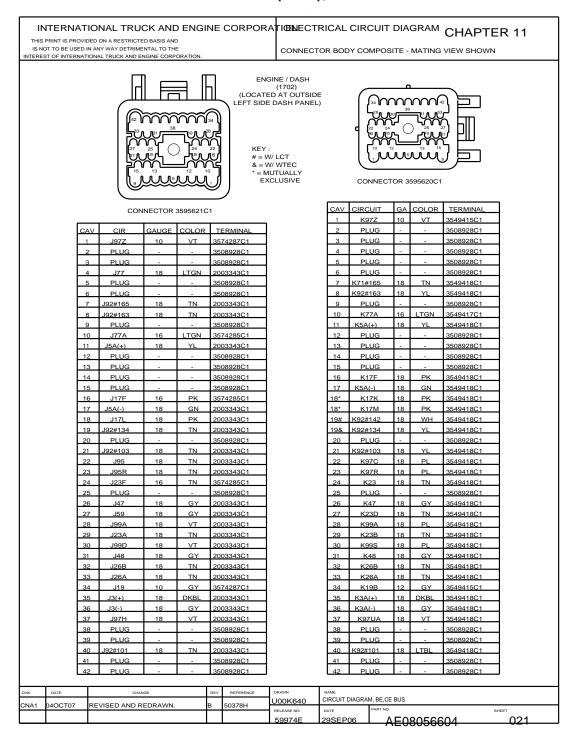


Figure 118 Connector Composites (1702)

11.22. CONNECTOR COMPOSITES (1800), (1804), P. 22

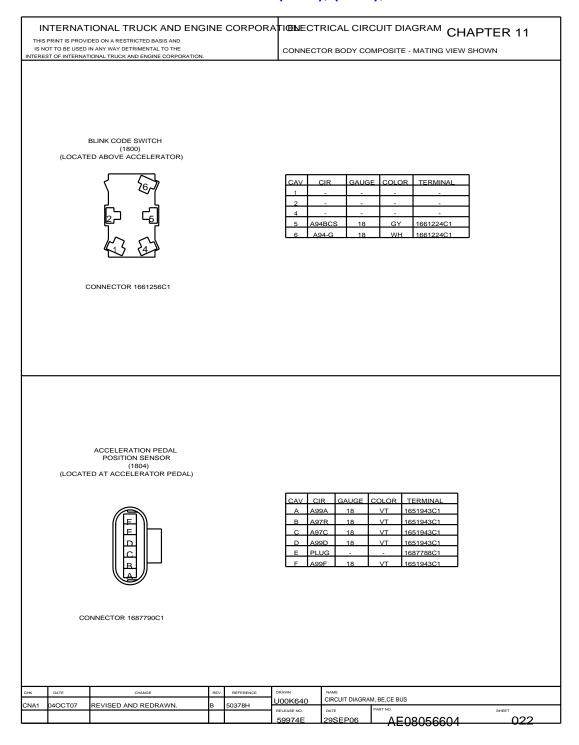


Figure 119 Connector Composites (1800), (1804)

11.23. CONNECTOR COMPOSITES (1809), (1810), (1811), (1812), (1823), P. 23

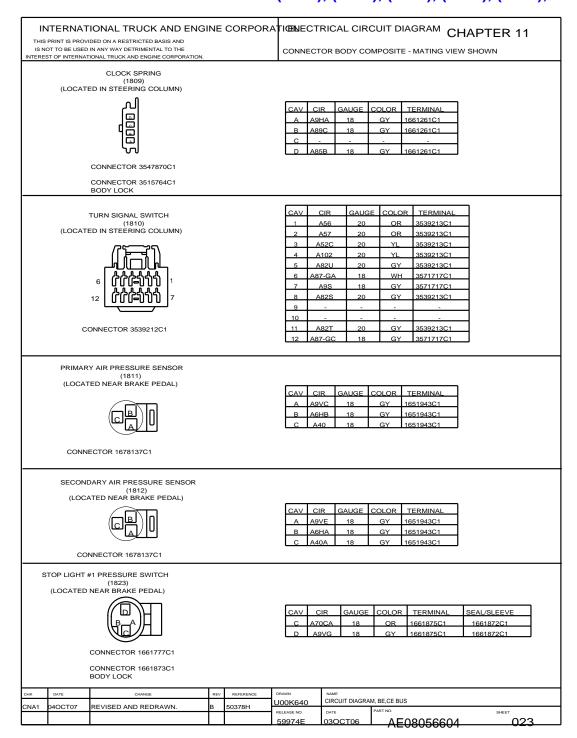


Figure 120 Connector Composites (1809), (1810), (1811), (1812), (1823)

11.24. CONNECTOR COMPOSITES (1824), (1828), (1830), (1850), P. 24

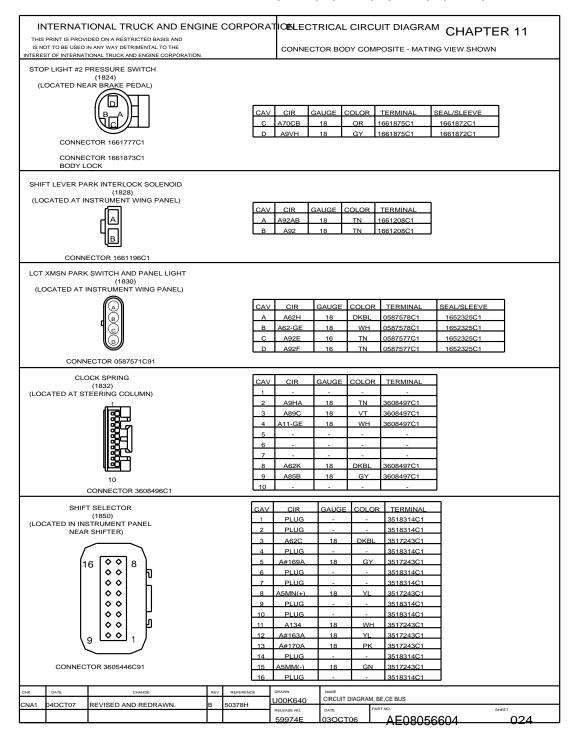


Figure 121 Connector Composites (1824), (1828), (1830), (1850)

11.25. CONNECTOR COMPOSITES (1900), (1901), (1906), (1907), (1912), P. 25

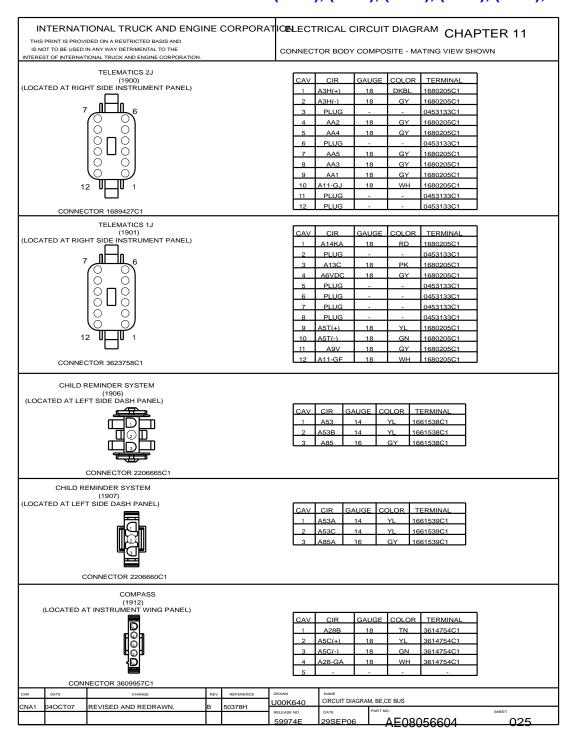


Figure 122 Connector Composites (1900), (1901), (1906), (1907), (1912)

11.26. CONNECTOR COMPOSITES (4002), (4003), (4005), (4006), (4016), P. 26

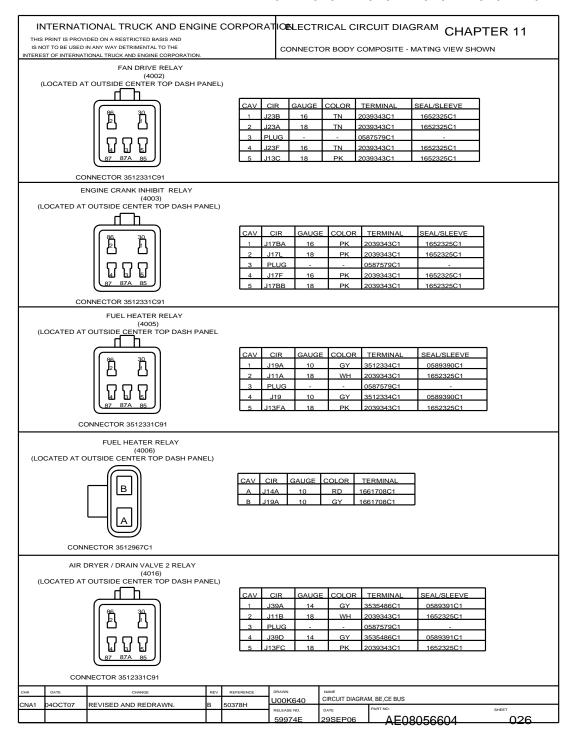


Figure 123 Connector Composites (4002), (4003), (4005), (4006), (4016)

11.27. CONNECTOR COMPOSITES (4017), (4034), (4036), (4039), (4040), (4041), P. 27

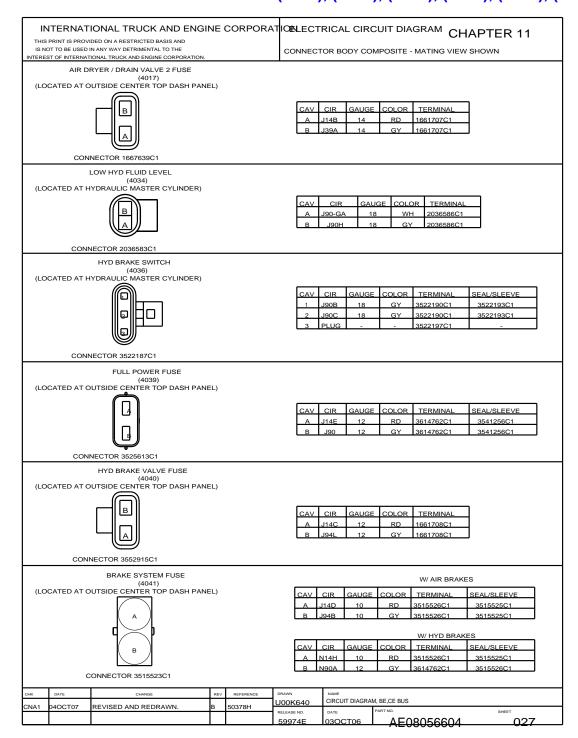


Figure 124 Connector Composites (4017), (4034), (4036), (4039), (4040), (4041)

11.28. CONNECTOR COMPOSITES (4046), (4087), (4111), P. 28

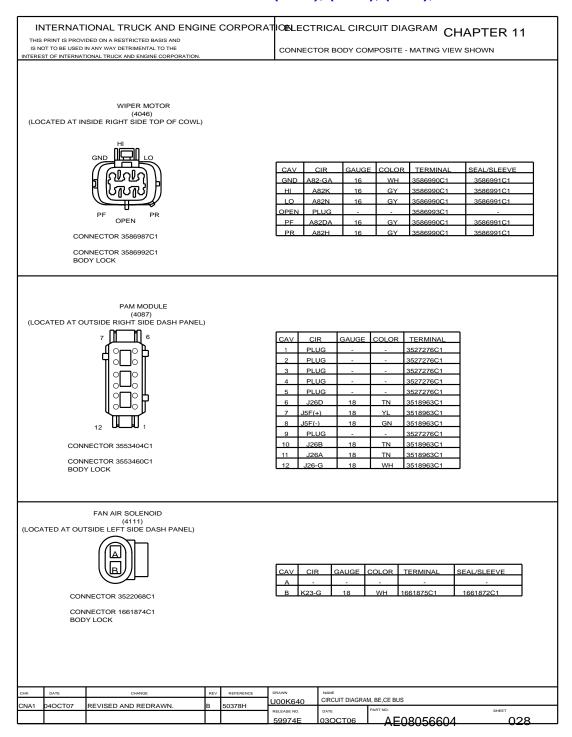


Figure 125 Connector Composites (4046), (4087), (4111)

11.29. CONNECTOR COMPOSITES (4200), (4201), (4202), (4203), (4301), P. 29

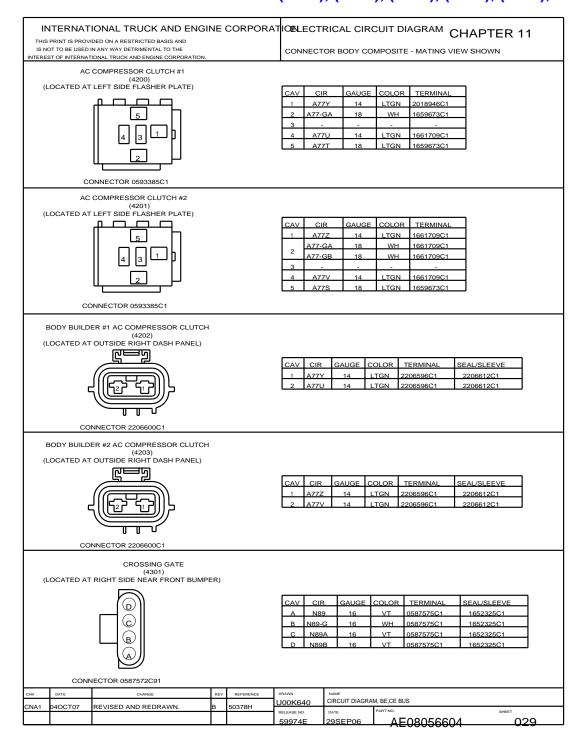


Figure 126 Connector Composites (4200), (4201), (4202), (4203), (4301)

11.30. CONNECTOR COMPOSITES (4302), (4303), (4500), (4905), (6011), P. 30

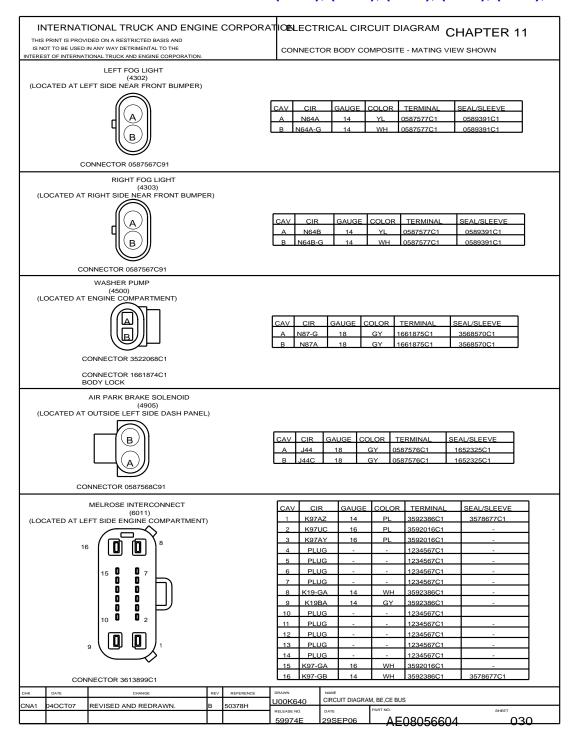


Figure 127 Connector Composites (4302), (4303), (4500), (4905), (6011)

11.31. CONNECTOR COMPOSITES (6020), P. 31

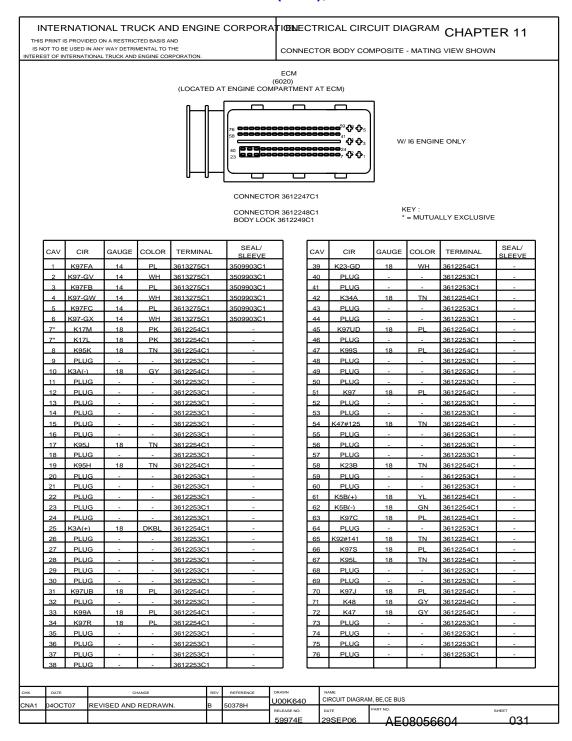


Figure 128 Connector Composites (6020)

11.32. CONNECTOR COMPOSITES (6020), P. 32

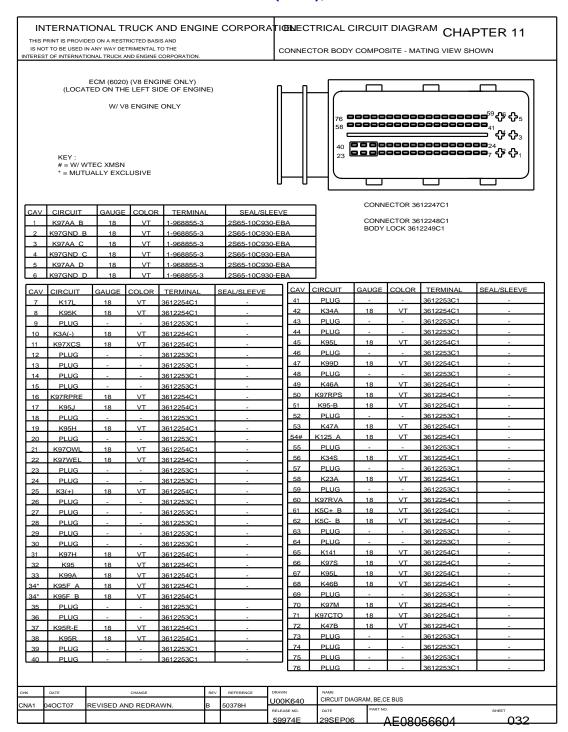


Figure 129 Connector Composites (6020)

11.33. CONNECTOR COMPOSITES (6022), (6023), (6200), (6259), (6260), P. 33

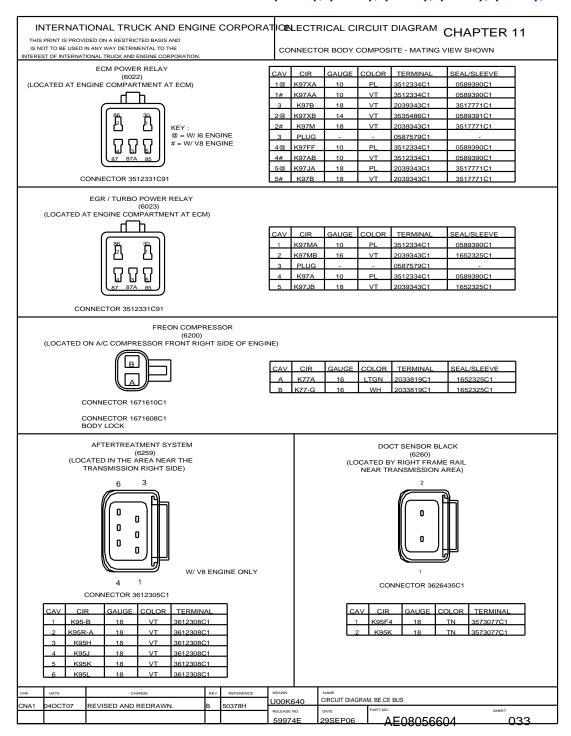


Figure 130 Connector Composites (6022), (6023), (6200), (6259), (6260)

11.34. CONNECTOR COMPOSITES (6261), (6262), (6263), (6316), (6323), P. 34

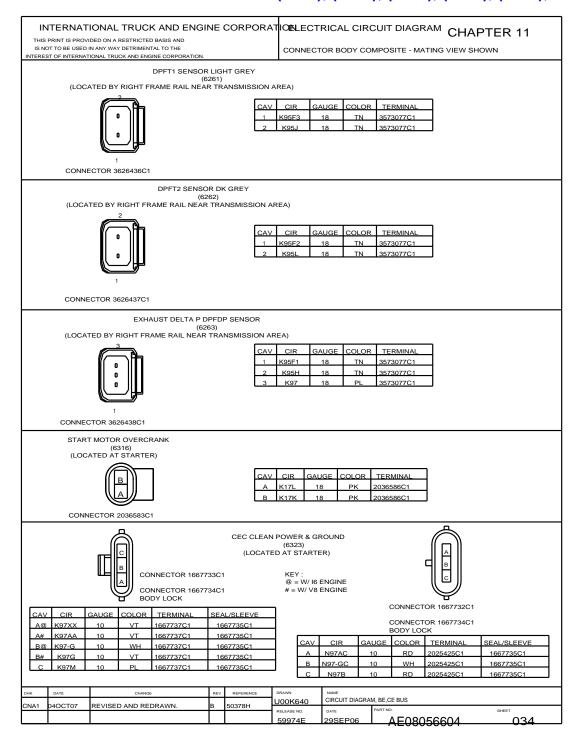


Figure 131 Connector Composites (6261), (6262), (6263), (6316), (6323)

11.35. CONNECTOR COMPOSITES (6334), (6400), (6401), (6402), (6406), (6703), P. 35

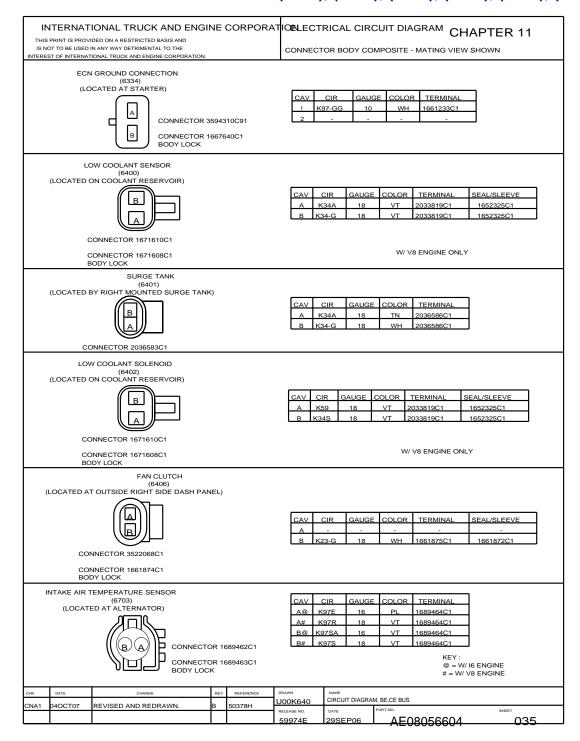


Figure 132 Connector Composites (6334), (6400), (6401), (6402), (6406), (6703)

11.36. CONNECTOR COMPOSITES (6704), (6715), (6740), (7104), P. 36

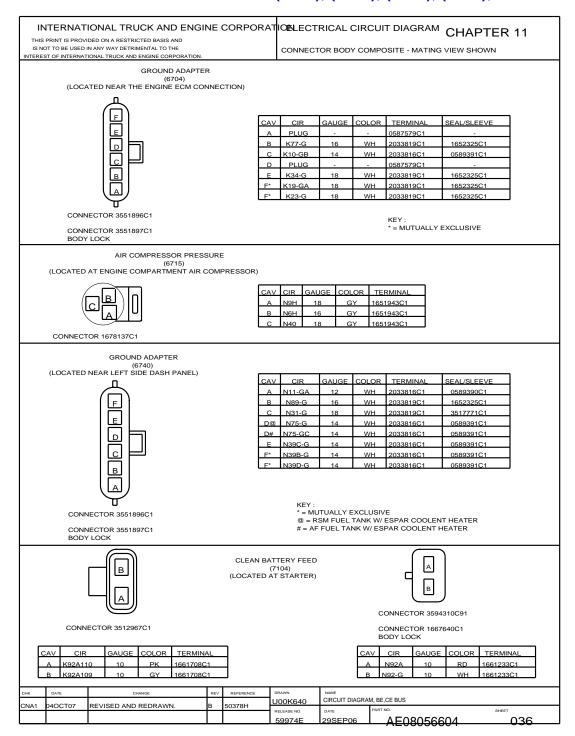


Figure 133 Connector Composites (6704), (6715), (6740), (7104)

11.37. CONNECTOR COMPOSITES (7150), P. 37

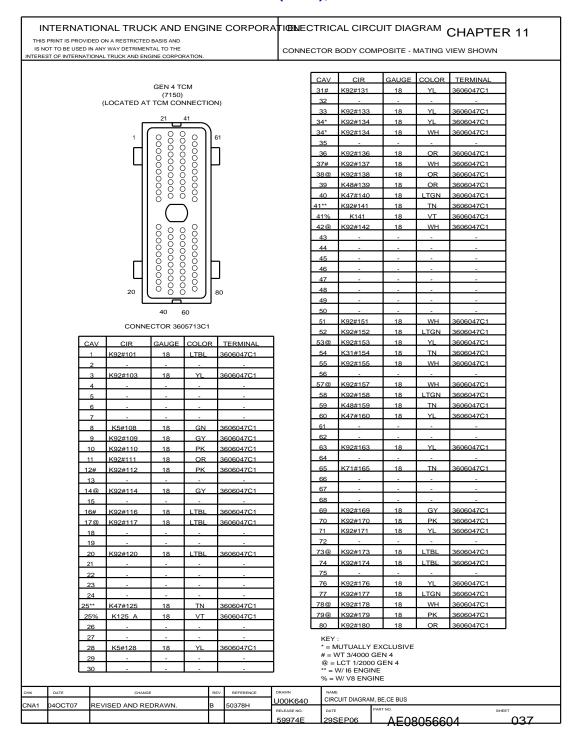


Figure 134 Connector Composites (7150)

11.38. CONNECTOR COMPOSITES (7250), (7350), (7600), P. 38

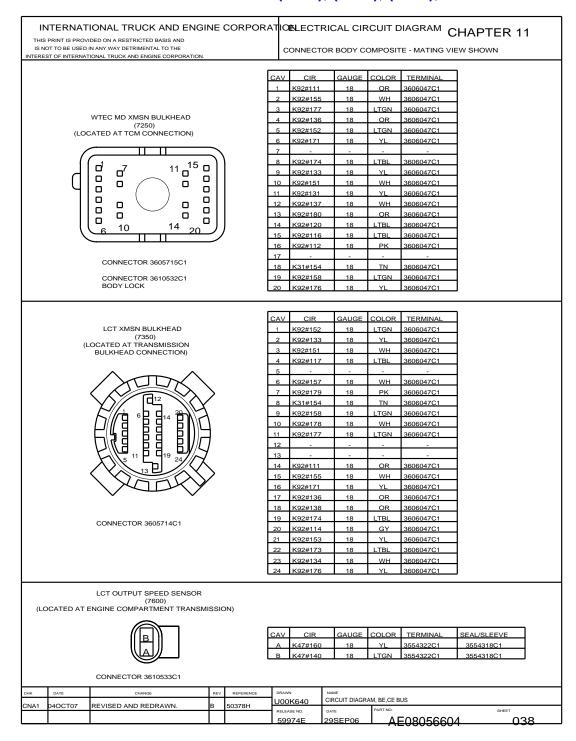


Figure 135 Connector Composites (7250), (7350), (7600)

11.39. CONNECTOR COMPOSITES (7603), (7604), (7605), (7607), (7701), P. 39

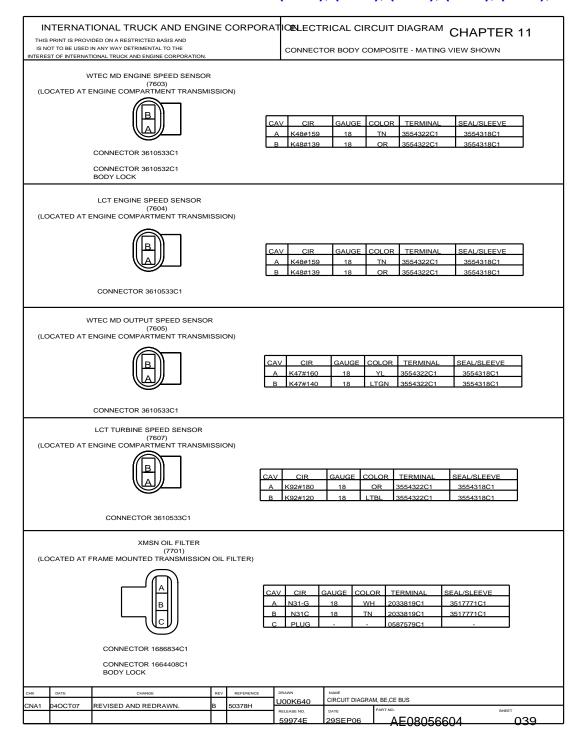


Figure 136 Connector Composites (7603), (7604), (7605), (7607), (7701)

11.40. CONNECTOR COMPOSITES (7801), (8000), (8001), P. 40

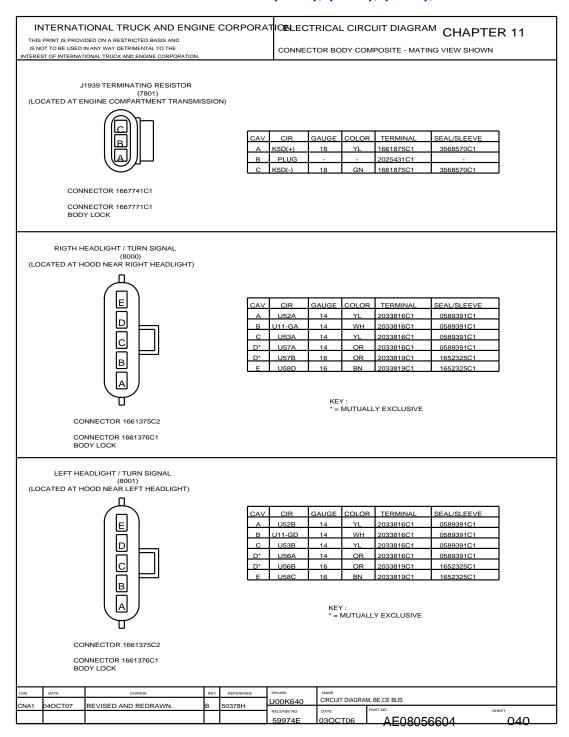


Figure 137 Connector Composites (7801), (8000), (8001)

11.41. CONNECTOR COMPOSITES (8003), (8004), (8100L), (8100R), P. 41

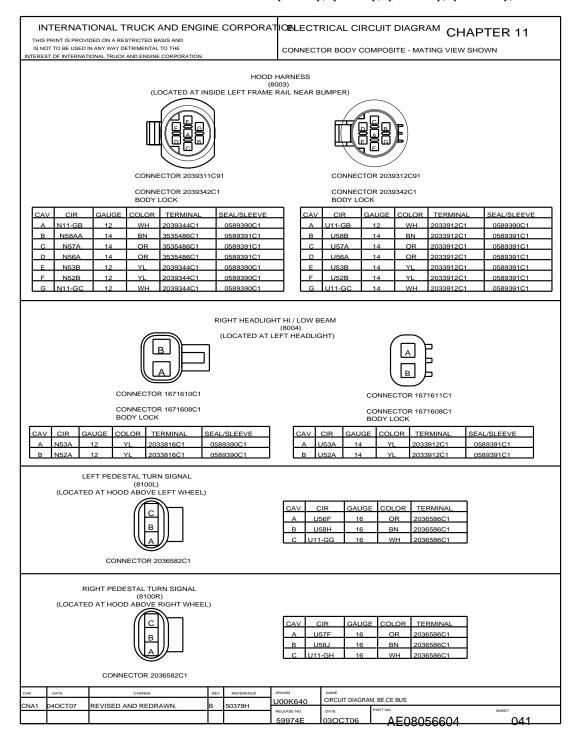


Figure 138 Connector Composites (8003), (8004), (8100L), (8100R)

11.42. CONNECTOR COMPOSITES (8310), (8311), (8312), (8450), (8601), P. 42

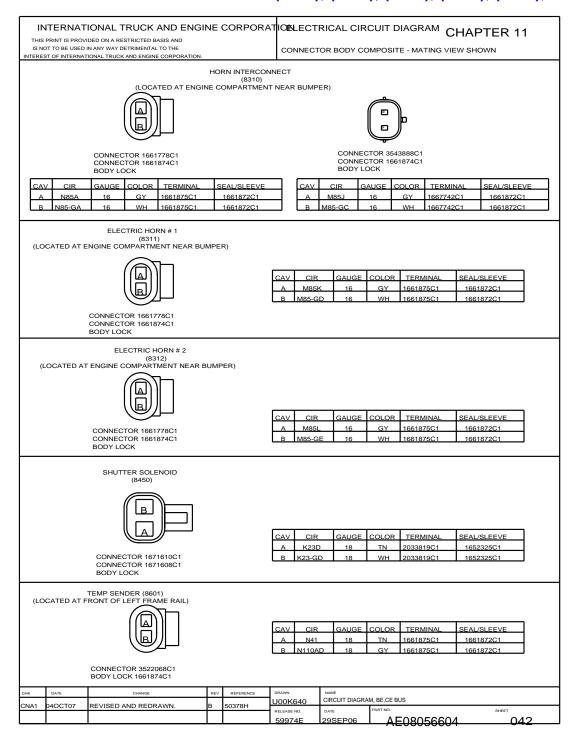


Figure 139 Connector Composites (8310), (8311), (8312), (8450), (8601)

11.43. CONNECTOR COMPOSITES (9000), (9001), (9002), P. 43

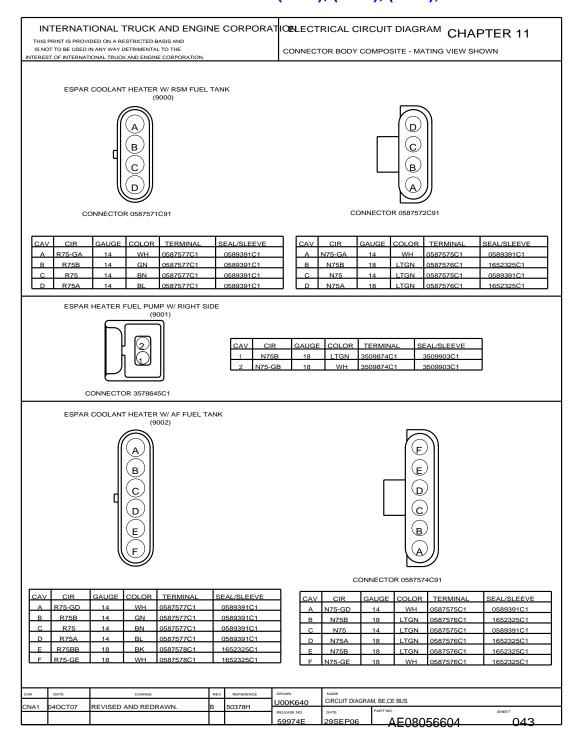


Figure 140 Connector Composites (9000), (9001), (9002)

11.44. CONNECTOR COMPOSITES (9003), (9004), (9100), P. 44

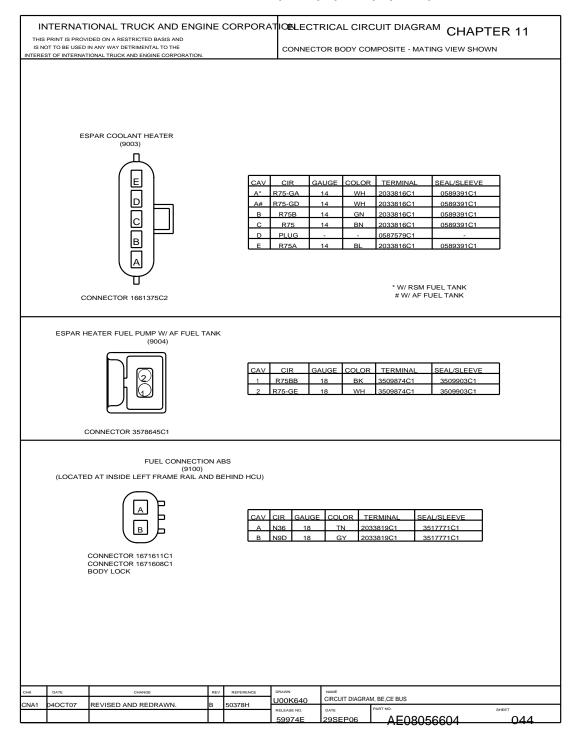


Figure 141 Connector Composites (9003), (9004), (9100)

11.45. CONNECTOR COMPOSITES (9100), (9101), (9254), (9257), P. 45

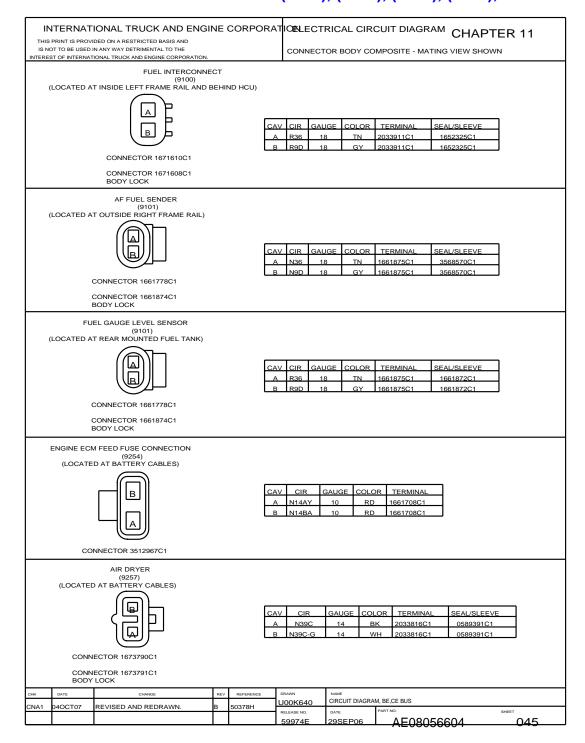


Figure 142 Connector Composites (9100), (9101), (9254), (9257)

11.46. CONNECTOR COMPOSITES (9258), (9260), (9261), P. 46

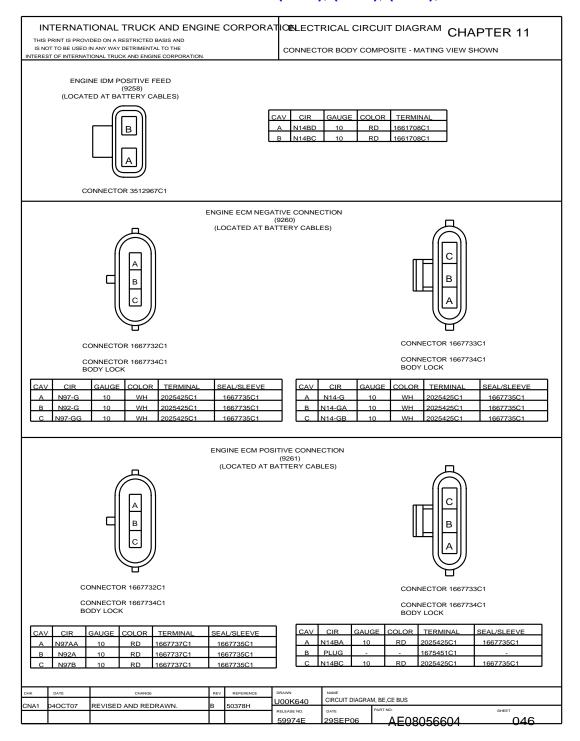


Figure 143 Connector Composites (9258), (9260), (9261)

11.47. CONNECTOR COMPOSITES (9501), (9503), (9506), (9507), P. 47

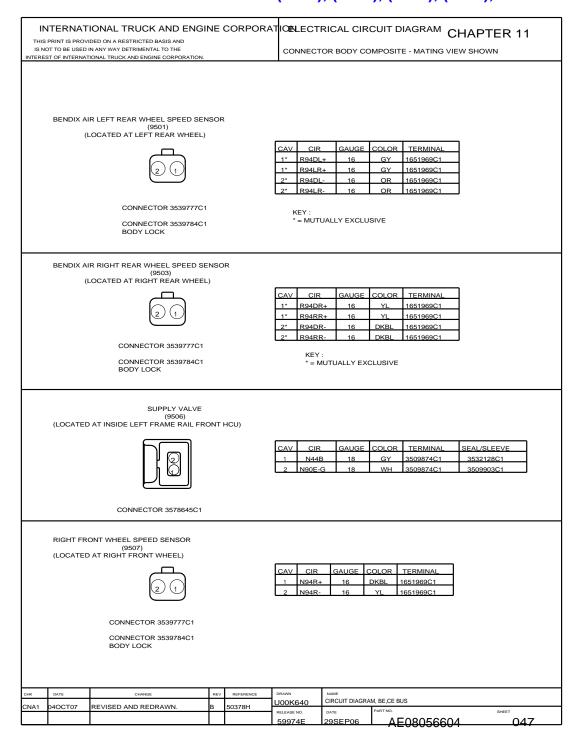


Figure 144 Connector Composites (9501), (9503), (9506), (9507)

11.48. CONNECTOR COMPOSITES (9508), (9510), (9511), P. 48

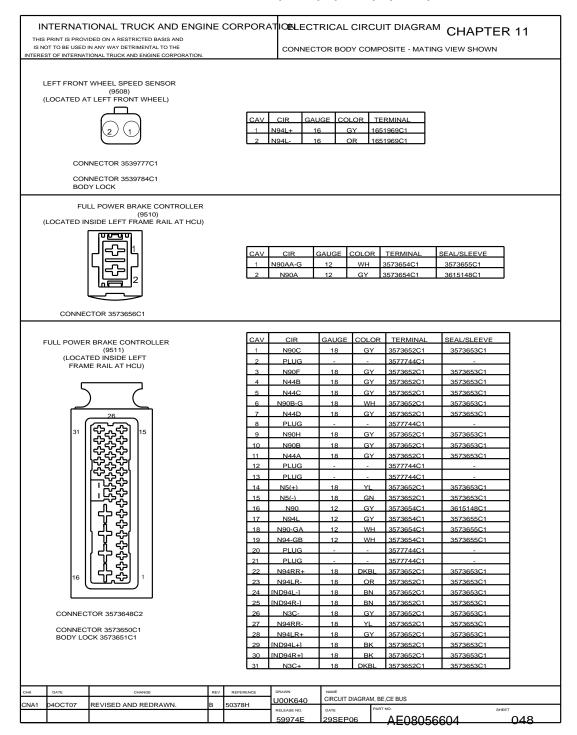


Figure 145 Connector Composites (9508), (9510), (9511)

11.49. CONNECTOR COMPOSITES (9512), (9513), P. 49

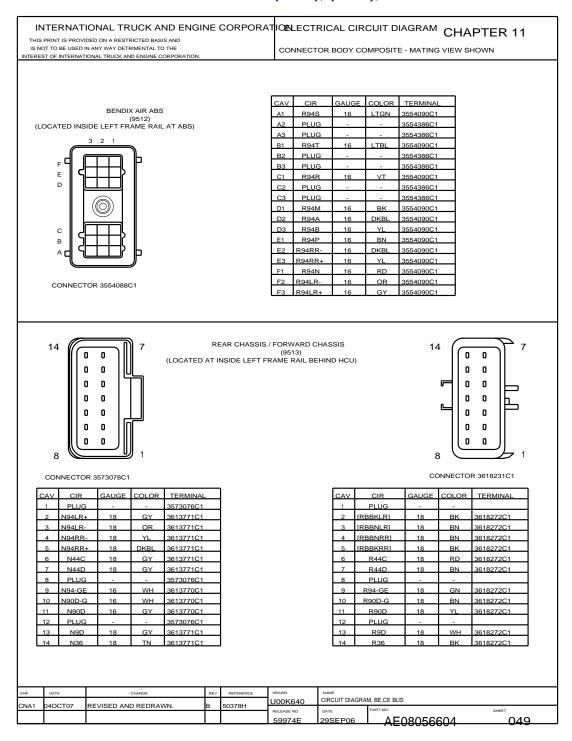


Figure 146 Connector Composites (9512), (9513)

11.50. CONNECTOR COMPOSITES (9514), (9515), (9516), (9517), P. 50

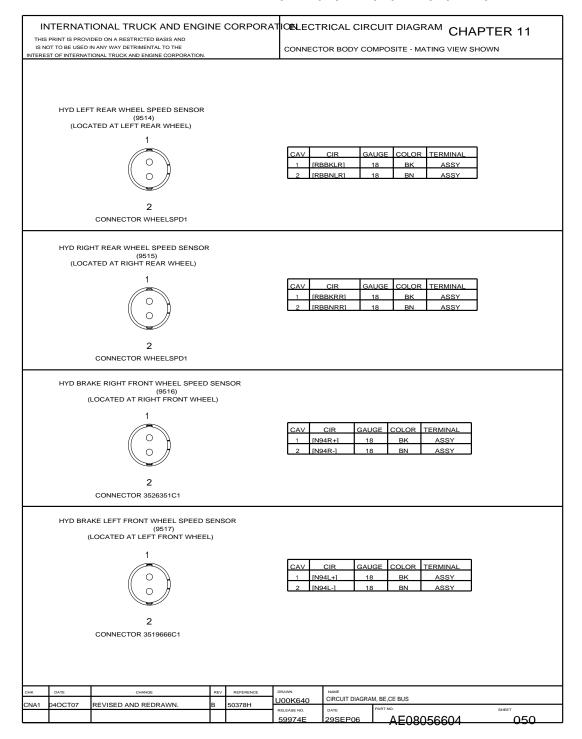


Figure 147 Connector Composites (9514), (9515), (9516), (9517)

11.51. CONNECTOR COMPOSITES (9518), (9519), (9520), (9521), P. 51

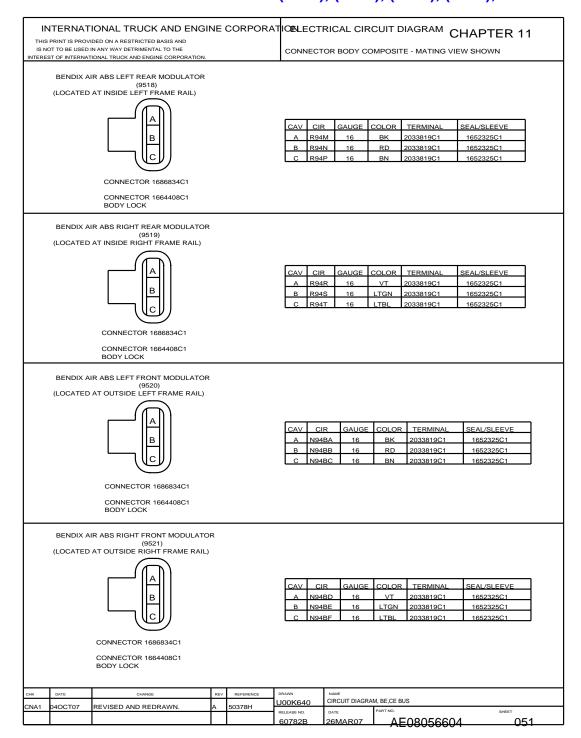


Figure 148 Connector Composites (9518), (9519), (9520), (9521)

11.52. CONNECTOR COMPOSITES (9522), (9526), (9527), P. 52

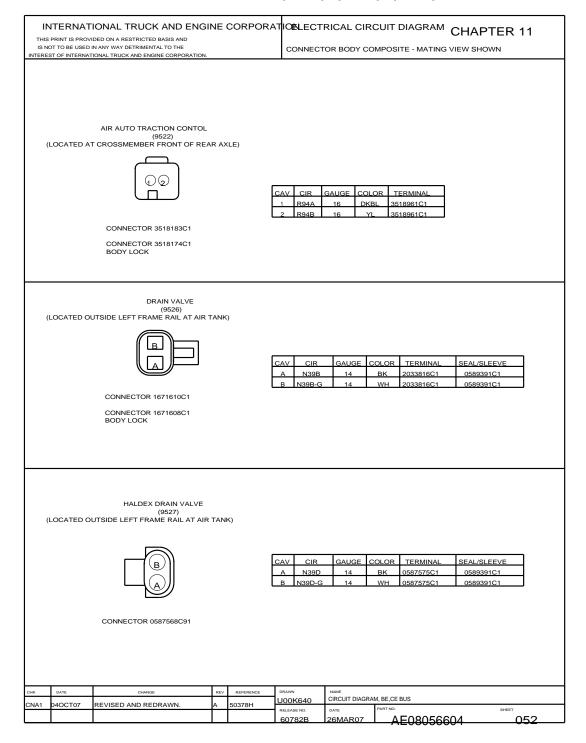


Figure 149 Connector Composites (9522), (9526), (9527)

11.53. CONNECTOR COMPOSITES (9533), (9534), (9535), P. 53

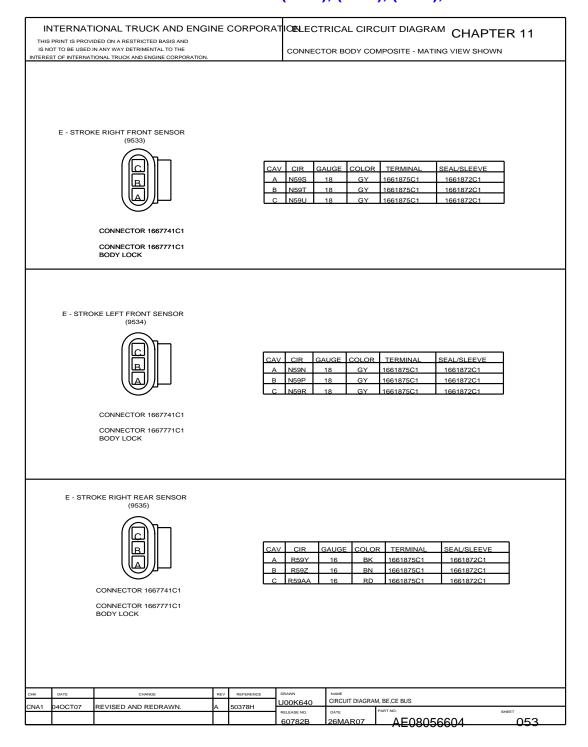


Figure 150 Connector Composites (9533), (9534), (9535)

11.54. CONNECTOR COMPOSITES (9536), (9537), (9538), P. 54

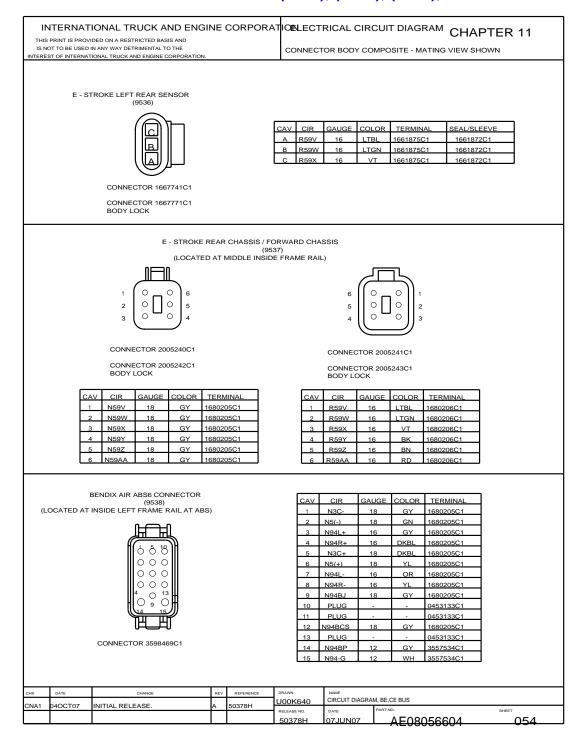


Figure 151 Connector Composites (9536), (9537), (9538)

11.55. CONNECTOR COMPOSITES (9539), (9540), (9541), P. 55

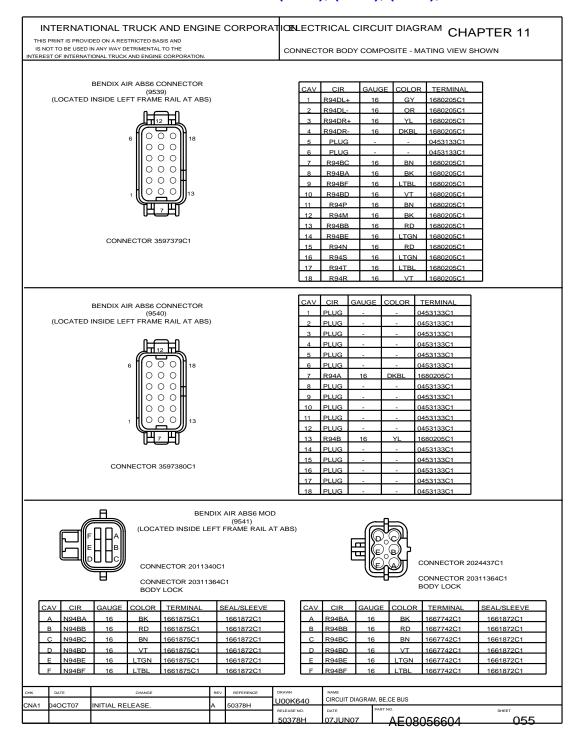


Figure 152 Connector Composites (9539), (9540), (9541)

11.56. CONNECTOR COMPOSITES (9736), (9777), (9778), P. 56

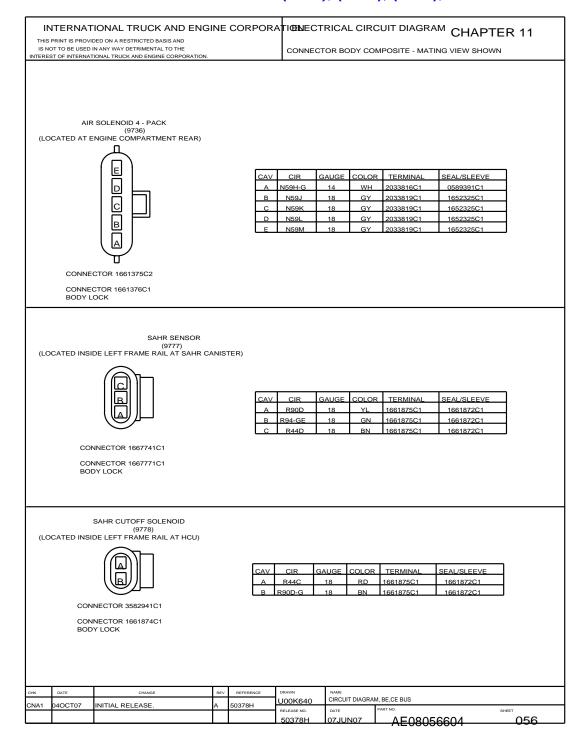


Figure 153 Connector Composites (9736), (9777), (9778)

160	1 BE, CE Bus Chassis Circuit Diagrams

