

SERVICE MANUAL

SERVICE MANUAL SECTION

9800 Model Built April 1, 2004 and After — ELECTRICAL CIRCUIT DIAGRAMS

**Model: 9800
Start Date: 04/01/2004**

S08318

07/12/2006

Table of Contents

1. INSTRUCTIONS AND CHARTS (LHD — CHAPTER 1).....	1
1.1. CIRCUIT IDENTIFICATION CHART, P. 1.....	1
1.2. CIRCUIT IDENTIFICATION CHART, P. 2.....	2
1.3. CIRCUIT IDENTIFICATION CHART, P. 3.....	3
1.4. CIRCUIT NUMBER IDENTIFICATION AND COLOR, P. 4.....	4
1.5. CIRCUIT DIAGRAM INSTRUCTION, P. 5.....	5
1.6. CIRCUIT DIAGRAM INSTRUCTION, P. 6.....	6
1.7. RELAY FUNCTIONS AND WIRING GUIDE, P. 7.....	7
1.8. RELAY FUNCTIONS AND WIRING GUIDE, P. 8.....	8
1.9. SCHEMATIC SYMBOL CHART, P. 9.....	9
1.10. SCHEMATIC SYMBOL CHART, P. 10.....	10
1.11. SCHEMATIC SYMBOL CHART, P. 11.....	11
1.12. LAMP BULB CHART, P. 12.....	12
1.13. EATON AUTO SHIFT, P. 13.....	13
1.14. EATON AUTO SHIFT, P. 14.....	14
1.15. 31-PIN OEM CONNECTOR INTERFACE, P. 15.....	15
1.16. 31-PIN OEM CONNECTOR INTERFACE, P. 16.....	16
1.17. ABS ECU PIN CONFIGURATION, P. 17.....	17
1.18. ABS ECU PIN CONFIGURATION, P. 18.....	18
2. 12 VOLT POWER DISTRIBUTION CIRCUIT DIAGRAMS (LHD — CHAPTER 2).....	19
2.1. START FEED, P. 1.....	19
2.2. START FEED, P. 2.....	20
2.3. START FEED WITH EATON TRANSMISSION, P. 3.....	21
2.4. BATTERY, P. 4.....	22
2.5. BATTERY, B1, P. 5.....	23
2.6. BATTERY, B1, P. 6.....	24
2.7. BATTERY, B2, P. 7.....	25
2.8. GROUND, P. 8.....	26
2.9. GROUND, P. 9.....	27
2.10. GROUNDS, P. 10.....	28
2.11. GROUNDS, P. 11.....	29
2.12. IGNITION, P. 12.....	30
2.13. ACCESSORY FEED, P. 13.....	31
2.14. PANEL LIGHT FEED ADAPTER, P. 14.....	32
2.15. PANEL LIGHT FEED ADAPTER, P. 15.....	33
2.16. PANEL LIGHT GROUND ADAPTER, P. 16.....	34
2.17. POWER SOURCE SOCKET, P. 17.....	35
2.18. IGNITION FEED, P. 18.....	36
2.19. J1939 DATALINK, P. 19.....	37
2.20. J1939 DATALINK, P. 20.....	38
2.21. J1939 DATALINK, P. 21.....	39
2.22. J1939 DATALINK, P. 22.....	40
2.23. J1939 DATALINK, P. 23.....	41
3. 12 VOLT CHARGING AND CRANKING SYSTEM (LHD — CHAPTER 3).....	42
3.1. WITH CUMMINS N14 ENGINE, P. 1.....	42

3.2. WITH CUMMINS N14 ENGINE WITH THERMAL OC, P. 2.....	43
3.3. WITH DETROIT DIESEL SERIES 60, P. 3.....	44
3.4. WITH THERMAL OC PROTECTION, P. 4.....	45
4. ENGINES (LHD — CHAPTER 4).....	46
4.1. CUMMINS ISX ELECTRONIC ENGINE CONTROL, P. 1.....	46
4.2. CUMMINS ISM ELECTRONIC ENGINE CONTROL, P. 2.....	47
4.3. CUMMINS ISM, ISX ELECTRONIC ENGINE CONTROL, P. 3.....	48
4.4. CUMMINS ISM, ISX — ELECTRONIC ENGINE CONTROLS, P. 4.....	49
4.5. CUMMINS ISM, ISX — ELECTRONIC ENGINE CONTROLS, P. 5.....	50
4.6. CUMMINS ISX/ISM — CRUISE CONTROL, P. 6.....	51
4.7. CUMMINS ISX/ISM — ENGINE BRAKES, P. 7.....	52
5. FANS (LHD — CHAPTER 5).....	53
5.1. HORTON AND KYSOR ENGINE FAN WITH CUMMINS ISX WITH OVERRIDE SWITCH, P. 1.....	53
5.2. REMOTE CONTROL FAN SOL, P. 2.....	54
6. GAUGES AND SYSTEMS (LHD — CHAPTER 6).....	55
6.1. ENGINE OIL TEMPERATURE GAUGE, P. 1.....	55
6.2. ENGINE WATER TEMPERATURE GAUGE, P. 2.....	56
6.3. FUEL LEVEL GAUGE, P. 3.....	57
6.4. AGRO SERIAL DATA LINK TRANSLATOR, P. 4.....	58
6.5. VOLTMETER GAUGE, P. 5.....	59
6.6. ENGINE OIL PRESSURE GAUGE (OPTIONAL), P. 6.....	60
6.7. TRANSMISSION OIL TEMPERATURE GAUGE, P. 7.....	61
6.8. TACHOGRAPH DATALINK TRANSLATOR, P. 8.....	62
6.9. CUMMINS ROAD RELAY DISPLAY, P. 9.....	63
6.10. ARGO VDO OR TACHOGRAPH, P. 10.....	64
6.11. PYROMETER GAUGE, P. 11.....	65
7. WARNING LIGHTS (LHD — CHAPTER 7).....	66
7.1. LOW AIR PRESSURE WARNING LIGHT, P. 1.....	66
7.2. PDL WARNING LIGHT AND ALARM, P. 2.....	67
7.3. STOP AND PARKING WARNING LIGHT, P. 3.....	68
7.4. PDL JUMPER, P. 4.....	69
7.5. WATER IN FUEL, P. 5.....	70
8. CAB ACCESSORIES (LHD — CHAPTER 8).....	71
8.1. CIGAR LIGHTER, P. 1.....	71
8.2. ELECTRIC WINDOW — LT, P. 2.....	72
8.3. ELECTRIC WINDOW — RIGHT, P. 3.....	73
8.4. ELECTRIC WINDSHIELD WIPERS WITH INTERMITTENT WIPE AND WASH, P. 4.....	74
8.5. HORN, P. 5.....	75
8.6. RADIO CAB SPEAKER, P. 6.....	76
8.7. HEATED MIRROR LIGHT, P. 7.....	77
8.8. LEFT AND RIGHT MOTORIZED MIRROR, P. 8.....	78
8.9. DUAL AXIS MOTORIZED MIRROR, P. 9.....	79
8.10. DEFROSTER FAN, P. 10.....	80
9. CHASSIS ACCESSORIES (LHD — CHAPTER 9).....	81
9.1. AIR DRYER AND HEATED FUEL FILTER, P. 1.....	81
9.2. TRAILER SOCKET, P. 2.....	82

9.3. EATON AUTO SHIFT TRANSMISSION, P. 3.....	83
9.4. EATON AUTO SHIFT TRANSMISSION (CONT.), P. 4.....	84
9.5. EATON AUTO SHIFT-2 TRANSMISSION, P. 5.....	85
9.6. EATON AUTO SHIFT TRANSMISSION, P. 6.....	86
9.7. EATON AUTO SHIFT TRANSMISSION — ECM, P. 7.....	87
9.8. WITH ABS CONTROLLER MODULE WITH AUTO TRACTION CONTROL, P. 8.....	88
9.9. ABS CONTROL MODULE, P. 9.....	89
9.10. ABS POWER FEED AND WARNING LIGHTS, P. 10.....	90
9.11. TRAILER ABS FEED, P. 11.....	91
9.12. WITH ELEC OVER AIR DRIVE CTRLD LOCKING DIFF CTRLS W/AIR SLI, P. 12.....	92
9.13. AIR SUSPENSION WARNING LIGHT, P. 13.....	93
9.14. CHASSIS PASS THROUGH FOR TRAILER CONNECTION, P. 14.....	94
9.15. CAB LIFT PUMP WITH ELECTRIC ASSISTANCE PUMP, P. 15.....	95
9.16. TRAILER AUXILIARY 12V-24V CONVERTER, P. 16.....	96
 10. SLEEPER LIGHTING AND ACCESSORIES (LHD — CHAPTER 10).....	 97
10.1. BUNK FLUORESCENT READING LIGHTS AND CIGAR LIGHTER, P. 1.....	97
10.2. BUNK FLUORESCENT READING LIGHTS AND CIGAR LIGHTER, P. 2.....	98
10.3. LUGGAGE COMPARTMENT LIGHT — RIGHT AND LEFT, P. 3.....	99
10.4. TV/VCR WIRING, P. 4.....	100
10.5. BUNK SPEAKER VOLUME CONTROL, P. 5.....	101
 11. LIGHT SYSTEMS (LHD — CHAPTER 11).....	 102
11.1. BACK-UP LIGHTS, P. 1.....	102
11.2. CAB AND TRAILER LIGHTS SWITCH AND RELAYS WIRING, P. 2.....	103
11.3. CAB CLEARANCE AND IDENTIFICATION LIGHTS FLAT ROOF, P. 3.....	104
11.4. CAB DOME, READING AND COURTESY LIGHTS AND SWITCHES, P. 4.....	105
11.5. DRIVING LIGHT, P. 5.....	106
11.6. FOG LIGHT, P. 6.....	107
11.7. HEADLIGHTS, P. 7.....	108
11.8. PANEL LIGHTS, P. 8.....	109
11.9. PANEL LIGHTS, P. 9.....	110
11.10. FRONT TURN-PARK-MARKER AND SIDE TURN-MARKER LIGHTS, P. 10.....	111
11.11. STOP, TAIL TURN AND HAZARD SIGNAL LIGHTS, P. 11.....	112
11.12. TRAILER WORK (HOOK-UP) LIGHT BACK OF CAB MOUNTED, P. 12.....	113
11.13. TRAILER AUXILIARY LIGHT, P. 13.....	114
11.14. DRL LAMP, P. 14.....	115
 12. HEATER AND AIR CONDITIONER (LHD — CHAPTER 12).....	 116
12.1. AIR CONDITIONER — CAB, P. 1.....	116
12.2. HEATER — CAB, P. 2.....	117
12.3. SLEEPER BUNK BLOWER, P. 3.....	118
12.4. HEATER — SLEEPER BUNK, P. 4.....	119
 13. CONNECTOR COMPOSITES (LHD — CHAPTER 13).....	 120
13.1. CONNECTOR COMPOSITES (3), (4A), (5), (7), (10), P. 5.....	120
13.2. CONNECTOR COMPOSITES (12), (17), (18), P. 6.....	121
13.3. CONNECTOR COMPOSITES (21), (23), (27), (29), P. 7.....	122
13.4. CONNECTOR COMPOSITES (30), (31), (34), (36), (39), P. 8.....	123
13.5. CONNECTOR COMPOSITES (41), (42), (43), (44), (45), P. 9.....	124
13.6. CONNECTOR COMPOSITES (48), (52), (54), (55), (56), P. 10.....	125
13.7. CONNECTOR COMPOSITES (57), (58), (59), (60), (61), (62), (65), (66), P. 11.....	126
13.8. CONNECTOR COMPOSITES (67), (68), (71), P. 12.....	127

13.9. CONNECTOR COMPOSITES (85), (86), P. 13.....	128
13.10. CONNECTOR COMPOSITES (87), (88), (94), (95), (97), P. 14.....	129
13.11. CONNECTOR COMPOSITES (122), (123), (155), P. 15.....	130
13.12. CONNECTOR COMPOSITES (156), (157), (189), (214), (225), (227), P. 16.....	131
13.13. CONNECTOR COMPOSITES (236), (239), (241), (242), P. 17.....	132
13.14. CONNECTOR COMPOSITES (262), (263), P. 18.....	133
13.15. CONNECTOR COMPOSITES (265), (278), (302), (306), P. 19.....	134
13.16. CONNECTOR COMPOSITES (309), (310), (316), (328) (332), (338), P. 20.....	135
13.17. CONNECTOR COMPOSITES (341), (345), (347), P. 21.....	136
13.18. CONNECTOR COMPOSITES (350), (351), (352), (353), (354), P. 22.....	137
13.19. CONNECTOR COMPOSITES (407), (408), P. 23.....	138
13.20. CONNECTOR COMPOSITES (414), (421), P. 24.....	139
13.21. CONNECTOR COMPOSITES (439), (440), P. 25.....	140
13.22. CONNECTOR COMPOSITE (451), P. 26.....	141
13.23. CONNECTOR COMPOSITE (462), P. 27.....	142
13.24. CONNECTOR COMPOSITES (462), (463), P. 28.....	143
13.25. CONNECTOR COMPOSITE (464), P. 29.....	144
13.26. CONNECTOR COMPOSITES (462), (463), P. 30.....	145
13.27. CONNECTOR COMPOSITES (464), (471), (474), (475), P. 31.....	146
13.28. CONNECTOR COMPOSITES (478), (482), (483), (495), P. 32.....	147
13.29. CONNECTOR COMPOSITES (498), (507), P. 33.....	148
13.30. CONNECTOR COMPOSITE (541), P. 34.....	149
13.31. CONNECTOR COMPOSITES (559), (560), (561), (563), P. 35.....	150
13.32. CONNECTOR COMPOSITES (568), (570), (571), (572), (575), (576), P. 36.....	151
13.33. CONNECTOR COMPOSITES (577), (591), (592), P. 37.....	152
13.34. CONNECTOR COMPOSITES (592F), (595), (598), (599), P. 38.....	153
13.35. CONNECTOR COMPOSITE (623), P. 39.....	154
13.36. CONNECTOR COMPOSITES (625), (626), (627), (651), (652), P. 40.....	155
13.37. CONNECTOR COMPOSITES (653), (657), (660), (662), (665), (675), (676), P. 41.....	156
13.38. CONNECTOR COMPOSITES (678), (679), (681), (682), (685), (686), P. 42.....	157
13.39. CONNECTOR COMPOSITE (690), P. 43.....	158
13.40. CONNECTOR COMPOSITES (692), (693), (694), (695), (696), (697), (698), (699), P. 44.....	159
13.41. CONNECTOR COMPOSITES (700), (702), (704), P. 45.....	160
13.42. CONNECTOR COMPOSITES (732), (733), (734), (735), (736), (737), P. 46.....	161
13.43. CONNECTOR COMPOSITES (738), (739), (740), (766–770), (774), P. 47.....	162
13.44. CONNECTOR COMPOSITES (775), (776), (777), (782), (783), (905M), (909), (910), P. 48.....	163
13.45. CONNECTOR COMPOSITES (911), (912), (913), (914), (915), (916), P. 49.....	164
13.46. CONNECTOR COMPOSITES (918), (920), (951), (955), P. 50.....	165
13.47. CONNECTOR COMPOSITES (967), (1002), (1003), P. 51.....	166
13.48. CONNECTOR COMPOSITES (911), (912), (913), (914), (915), (916), P. 52.....	167
13.49. CONNECTOR COMPOSITES (918), (920), (951), (955), P. 53.....	168
13.50. CONNECTOR COMPOSITES (2), (2A), (3M), (4F), P. 54.....	169
13.51. CONNECTOR COMPOSITES (4A), (9), P. 55.....	170
13.52. CONNECTOR COMPOSITES (11), (13), (16), P. 56.....	171
13.53. CONNECTOR COMPOSITES (19F), (20N), (20M), P. 57.....	172
13.54. CONNECTOR COMPOSITES (21F), (22), (24M), P. 58.....	173
13.55. CONNECTOR COMPOSITE (25M), P. 59.....	174
13.56. CONNECTOR COMPOSITES (30F), (31), P. 60.....	175
13.57. CONNECTOR COMPOSITES (44M), (45F), (48F), P. 61.....	176
13.58. CONNECTOR COMPOSITES (51M), (55F), P. 62.....	177
13.59. CONNECTOR COMPOSITE (72M), P. 63.....	178
13.60. CONNECTOR COMPOSITES (80), (80M), (81), (81M), P. 64.....	179

13.61. CONNECTOR COMPOSITES (102), (102F), P. 65.....	180
13.62. CONNECTOR COMPOSITES (103M), (104), (104M), (104F), P. 66.....	181
13.63. CONNECTOR COMPOSITES (108F), (109F), (111M), (112F), P. 67.....	182
13.64. CONNECTOR COMPOSITES (114), (114M), (116), P. 68.....	183
13.65. CONNECTOR COMPOSITES (116F), (122), (123), P. 69.....	184
13.66. CONNECTOR COMPOSITES (125F), (127), (127A), (136), P. 70.....	185
13.67. CONNECTOR COMPOSITES (150), (152), (170F), (189M), P. 71.....	186
13.68. CONNECTOR COMPOSITE (207), P. 72.....	187
13.69. CONNECTOR COMPOSITES (234M), (239), (239M), P. 73.....	188
13.70. CONNECTOR COMPOSITES (214M), (220M), P. 74.....	189
13.71. CONNECTOR COMPOSITES (240), (241), P. 75.....	190
13.72. CONNECTOR COMPOSITES (242), (243), P. 76.....	191
13.73. CONNECTOR COMPOSITES (244M), (245), P. 77.....	192
13.74. CONNECTOR COMPOSITES (262F), (262M), P. 78.....	193
13.75. CONNECTOR COMPOSITES (284F), (285F), P. 79.....	194
13.76. CONNECTOR COMPOSITES (293F), (306M), P. 80.....	195
13.77. CONNECTOR COMPOSITES (307F), (340), (342M), P. 81.....	196
13.78. CONNECTOR COMPOSITES (350), (357), P. 82.....	197
13.79. CONNECTOR COMPOSITES (358), (359), (360), P. 83.....	198
13.80. CONNECTOR COMPOSITES (363F), (369M), (400F), P. 84.....	199
13.81. CONNECTOR COMPOSITES (403F), (403M), P. 85.....	200
13.82. CONNECTOR COMPOSITES (409M), (410M), (411M), P. 86.....	201
13.83. CONNECTOR COMPOSITES (412M), (413M), P. 87.....	202
13.84. CONNECTOR COMPOSITES (415M), (416M), P. 88.....	203
13.85. CONNECTOR COMPOSITES (418M), (419M), P. 89.....	204
13.86. CONNECTOR COMPOSITES (420M), (423F), P. 90.....	205
13.87. CONNECTOR COMPOSITES (434M), (437), (437M), P. 91.....	206
13.88. CONNECTOR COMPOSITES (439M), (441M), P. 92.....	207
13.89. CONNECTOR COMPOSITES (444M), (445M), (446M), P. 93.....	208
13.90. CONNECTOR COMPOSITES (447M), (449M), P. 94.....	209
13.91. CONNECTOR COMPOSITES (452), (452M), (454M), P. 95.....	210
13.92. G2, G3 GROUND ADAPTERS, P. 96.....	211
13.93. CONNECTOR COMPOSITE (462M) F1 THRU F4 FUSEBLOCKS, P. 97.....	212
13.94. CONNECTOR COMPOSITE (462M) F5 FUSEBLOCK, P. 98.....	213
13.95. CONNECTOR COMPOSITE (462M) RELAYS, P. 99.....	214
13.96. CONNECTOR COMPOSITE (463M) F6, F7, F8 FUSEBLOCKS, P. 100.....	215
13.97. CONNECTOR COMPOSITE (463M) RELAYS, P. 101.....	216
13.98. CONNECTOR COMPOSITE (955), P. 102.....	217
13.99. CONNECTOR COMPOSITE (464M) F10 FUSEBLOCK, P. 103.....	218
13.100. CONNECTOR COMPOSITE (464M) F11 FUSEBLOCK, P. 104.....	219
13.101. CONNECTOR COMPOSITE (464M) RELAYS, P. 105.....	220
13.102. CONNECTOR COMPOSITES (476M), (477M), (480M), P. 106.....	221
13.103. CONNECTOR COMPOSITES (481M), (483M), P. 107.....	222
13.104. CONNECTOR COMPOSITE (494M), P. 108.....	223
13.105. CONNECTOR COMPOSITE (496M), P. 109.....	224
13.106. CONNECTOR COMPOSITES (498M), (501M), (504M), (505M), P. 110.....	225
13.107. CONNECTOR COMPOSITES (506M), (507M), P. 111.....	226
13.108. CONNECTOR COMPOSITES (508M), (509M), P. 112.....	227
13.109. CONNECTOR COMPOSITES (514M), (515M), (516M), P. 113.....	228
13.110. CONNECTOR COMPOSITES (517M), (518M), P. 114.....	229
13.111. CONNECTOR COMPOSITES (529M), (533M), (535F), P. 115.....	230
13.112. CONNECTOR COMPOSITES (535), (540M), P. 116.....	231
13.113. CONNECTOR COMPOSITES (544), (546), P. 117.....	232

13.114. CONNECTOR COMPOSITES (550), (551), (552), P. 118.....	233
13.115. CONNECTOR COMPOSITES (557), (557F), P. 119.....	234
13.116. CONNECTOR COMPOSITES (558), (558M), (564), P. 120.....	235
13.117. CONNECTOR COMPOSITES (562), (563), P. 121.....	236
13.118. CONNECTOR COMPOSITES (572M), (575), (576), P. 122.....	237
13.119. CONNECTOR COMPOSITES (581M), (586M), P. 123.....	238
13.120. CONNECTOR COMPOSITES (587M), (589M), P. 124.....	239
13.121. CONNECTOR COMPOSITES (593M), P. 125.....	240
13.122. CONNECTOR COMPOSITES (595F), (595M), P. 126.....	241
13.123. CONNECTOR COMPOSITES (607M), (612), (613), P. 127.....	242
13.124. CONNECTOR COMPOSITES (616M), (624), (625), P. 128.....	243
13.125. CONNECTOR COMPOSITES (621F), (622F), (625F), (625M), P. 129.....	244
13.126. CONNECTOR COMPOSITES (627), (628M), P. 130.....	245
13.127. CONNECTOR COMPOSITES (633M), (645M), P. 131.....	246
13.128. CONNECTOR COMPOSITES (675), (675M), P. 132.....	247
13.129. CONNECTOR COMPOSITES (717F), P. 133.....	248
13.130. CONNECTOR COMPOSITES (738M), (739F), P. 134.....	249
13.131. CONNECTOR COMPOSITES (709M), (751F), P. 135.....	250
13.132. CONNECTOR COMPOSITES (900C), P. 136.....	251
13.133. CONNECTOR COMPOSITES (955), P. 137.....	252
13.134. CONNECTOR COMPOSITES (955M), P. 138.....	253
13.135. CONNECTOR COMPOSITES (957), P. 139.....	254
13.136. CONNECTOR COMPOSITES (959), (960C), (960D), (960M), P. 140.....	255
13.137. CONNECTOR COMPOSITES (958M), (959M), P. 141.....	256
13.138. CONNECTOR COMPOSITES (963), (965F), (965M), (979), P. 143.....	257
13.139. CONNECTOR COMPOSITES (968M), (969M), (970M), (971M), P. 144.....	258
13.140. CONNECTOR COMPOSITES (973M), (974M), (975M), (971M), P. 145.....	259
13.141. CONNECTOR COMPOSITES (980), (1020), (1021), P. 146.....	260
13.142. CONNECTOR COMPOSITES (1011F), (1015M), (1016M), P. 147.....	261
13.143. CONNECTOR COMPOSITES (1017M), (1018F), (1019M), P. 148.....	262
13.144. CONNECTOR COMPOSITES (1030A), (1030B), P. 149.....	263
13.145. CONNECTOR COMPOSITES (1030M), (1031M), (1032M), P. 150.....	264
13.146. CONNECTOR COMPOSITES (1036), P. 151.....	265
13.147. CONNECTOR COMPOSITES (1093), P. 152.....	266
13.148. CONNECTOR COMPOSITES (1239C), (1239E), P. 153.....	267
13.149. CONNECTOR COMPOSITES (1171M), P. 154.....	268
13.150. CONNECTOR COMPOSITES (36M), (37M), (40M), P. 155.....	269
13.151. CONNECTOR COMPOSITES (64F), (69F), (70M), (70F), P. 156.....	270
13.152. CONNECTOR COMPOSITES (73M), P. 157.....	271
13.153. CONNECTOR COMPOSITES (83M), (84F), P. 158.....	272
13.154. CONNECTOR COMPOSITES (227), (690), (457M), P. 159.....	273
13.155. CONNECTOR COMPOSITES (63F), (976M), (657), P. 160.....	274
 14. POWER DISTRIBUTION LAYOUT (LHD — CHAPTER 14).....	 275
14.1. FUSE AND CIRCUIT BREAKER LOCATION, P. 1.....	275
14.2. FUSE AND CIRCUIT BREAKER LOCATION (CONT.), P. 2.....	276
14.3. FUSE AND CIRCUIT BREAKER LOCATION (CONT.), P. 3.....	277
 15. INSTRUCTIONS AND CHARTS (RHD — CHAPTER 1).....	 278
15.1. CIRCUIT IDENTIFICATION CHART, P. 1.....	278
15.2. CIRCUIT IDENTIFICATION CHART, P. 2.....	279
15.3. CIRCUIT IDENTIFICATION CHART, P. 3.....	280
15.4. CIRCUIT NUMBER IDENTIFICATION AND COLOR, P. 4.....	281

15.5. CIRCUIT DIAGRAM INSTRUCTION, P. 5.....	282
15.6. CIRCUIT DIAGRAM INSTRUCTION, P. 6.....	283
15.7. RELAY FUNCTIONS AND WIRING GUIDE, P. 7.....	284
15.8. RELAY FUNCTIONS AND WIRING GUIDE, P. 8.....	285
15.9. SCHEMATIC SYMBOL CHART, P. 9.....	286
15.10. SCHEMATIC SYMBOL CHART, P. 10.....	287
15.11. SCHEMATIC SYMBOL CHART, P. 11.....	288
15.12. LAMP BULB CHART, P. 12.....	289
15.13. EATON AUTO SHIFT, P. 13.....	290
15.14. EATON AUTO SHIFT, P. 14.....	291
15.15. 31-PIN OEM CONNECTOR INTERFACE, P. 15.....	292
15.16. 31-PIN OEM CONNECTOR INTERFACE, P. 16.....	293
15.17. ABS ECU PIN CONFIGURATION, P. 17.....	294
15.18. ABS ECU PIN CONFIGURATION, P. 18.....	295
 16. 12 VOLT POWER DISTRIBUTION CIRCUIT DIAGRAMS (RHD — CHAPTER 2).....	296
16.1. START FEED, P. 1.....	296
16.2. START FEED, P. 2.....	297
16.3. START FEED WITH EATON TRANSMISSION, P. 3.....	298
16.4. BATTERY, P. 4.....	299
16.5. BATTERY, B1, P. 5.....	300
16.6. BATTERY, B1, P. 6.....	301
16.7. BATTERY, B2, P. 7.....	302
16.8. GROUND, P. 8.....	303
16.9. GROUND, P. 9.....	304
16.10. GROUNDS, P. 10.....	305
16.11. GROUNDS, P. 11.....	306
16.12. IGNITION, P. 12.....	307
16.13. ACCESSORY FEED, P. 13.....	308
16.14. PANEL LIGHT FEED ADAPTER, P. 14.....	309
16.15. PANEL LIGHT FEED ADAPTER, P. 15.....	310
16.16. PANEL LIGHT GROUND ADAPTER, P. 16.....	311
16.17. POWER SOURCE SOCKET, P. 17.....	312
16.18. IGNITION FEED, P. 18.....	313
16.19. J1939 DATALINK, P. 19.....	314
16.20. J1939 DATALINK, P. 20.....	315
16.21. J1939 DATALINK, P. 21.....	316
16.22. J1939 DATALINK, P. 22.....	317
16.23. J1939 DATALINK, P. 23.....	318
 17. 12 VOLT CHARGING AND CRANKING SYSTEM (RHD — CHAPTER 3).....	319
17.1. WITH CUMMINS ISX ENGINE, P. 1.....	319
 18. ENGINES (RHD — CHAPTER 4).....	320
18.1. CUMMINS ISX ELECTRONIC ENGINE CONTROL, P. 1.....	320
18.2. CUMMINS ISX ELECTRONIC ENGINE CONTROL, P. 2.....	321
18.3. CUMMINS ISX ELECTRONIC ENGINE CONTROL, P. 3.....	322
18.4. CUMMINS ISX ELECTRONIC ENGINE CONTROLS, P. 4.....	323
18.5. CUMMINS ISX CRUISE CONTROL, P. 5.....	324
18.6. CUMMINS ISX ENGINE BRAKES, P. 6.....	325
 19. FANS (RHD — CHAPTER 5).....	326

19.1. HORTON AND KYSOR ENGINE FAN WITH CUMMINS ISX WITH OVERRIDE SWITCH, P. 1.....	326
19.2. REMOTE CONTROL FAN SOLENOID, P. 2.....	327
20. GAUGES AND SYSTEMS (RHD — CHAPTER 6).....	328
20.1. ENGINE OIL TEMPERATURE GAUGE, P. 1.....	328
20.2. ENGINE WATER TEMPERATURE GAUGE, P. 2.....	329
20.3. FUEL LEVEL GAUGE, P. 3.....	330
20.4. FUEL LEVEL GAUGE, P. 4.....	331
20.5. VOLTMETER GAUGE, P. 5.....	332
20.6. ENGINE OIL PRESSURE GAUGE (OPTIONAL), P. 6.....	333
20.7. TRANSMISSION OIL TEMPERATURE GAUGE, P. 7.....	334
20.8. TACHOGRAPH DATALINK TRANSLATOR, P. 8.....	335
20.9. ROAD RELAY DISPLAY, P. 9.....	336
21. WARNING LIGHTS (RHD — CHAPTER 7).....	337
21.1. LOW AIR PRESSURE WARNING LIGHT, P. 1.....	337
21.2. PDL WARNING LIGHT AND ALARM, P. 2.....	338
21.3. STOP AND PARKING WARNING LIGHT, P. 3.....	339
21.4. PDL JUMPER, P. 4.....	340
22. CAB ACCESSORIES (RHD — CHAPTER 8).....	341
22.1. CIGAR LIGHTER, P. 1.....	341
22.2. ELECTRIC WINDOW — RT, P. 2.....	342
22.3. ELECTRIC WINDOW — LT, P. 3.....	343
22.4. ELECTRIC WINDSHIELD WIPERS WITH INTERMITTENT WIPE AND WASH, P. 4.....	344
22.5. HORN, P. 5.....	345
22.6. RADIO CAB SPEAKERS, P. 6.....	346
22.7. MIRROR LIGHTS AND HEATED MIRRORS, P. 7.....	347
22.8. DUAL AXIS MOTORIZED MIRROR, P. 8.....	348
22.9. DEFROSTER FAN, P. 9.....	349
23. CHASSIS ACCESSORIES (RHD — CHAPTER 9).....	350
23.1. AIR DRYER AND HEATED FUEL FILTER, P. 1.....	350
23.2. CHASSIS ACC, TRAILER CONNECTION — BACK OF SLEEPER, P. 2.....	351
23.3. EATON AUTO SHIFT TRANSMISSION, P. 3.....	352
23.4. EATON AUTO SHIFT TRANSMISSION (CONT.), P. 4.....	353
23.5. EATON AUTO SHIFT-2 TRANSMISSION, P. 5.....	354
23.6. EATON AUTO SHIFT TRANSMISSION, P. 6.....	355
23.7. EATON AUTO SHIFT TRANSMISSION — ECM, P. 7.....	356
23.8. ABS CONTROL MODULE, P. 8.....	357
23.9. ABS CONTROL MODULE, P. 9.....	358
23.10. ABS POWER FEED AND WARNING LIGHTS, P. 10.....	359
23.11. TRAILER ABS FEED, P. 11.....	360
23.12. TRAILER CONNECTION WITH SLEEPER, MOUNTED BACK OF SLEEPER, P. 12.....	361
23.13. AIR SUSPENSION RELEASE WARNING LIGHT, P. 13.....	362
23.14. CHASSIS PASS THROUGH FOR TRAILER CONNECTION, P. 14.....	363
23.15. CAB LIFT PUMP WITH ELECTRIC ASSISTANCE PUMP, P. 15.....	364
23.16. ABS6 AIR, POWER, WARNING LIGHTS, P. 16.....	365
23.17. ABS6 AIR, TRACTION CONTROL, P. 17.....	366
23.18. ABS6 AIR, CHASSIS, P. 18.....	367
23.19. ABS6 AIR, CHASSIS, P. 19.....	368

24. SLEEPER LIGHTING AND ACCESSORIES (RHD — CHAPTER 10).....	369
24.1. BUNK FLUORESCENT READING LIGHTS AND CIGAR LIGHTER, P. 1.....	369
24.2. BUNK FLUORESCENT READING LIGHTS AND CIGAR LIGHTER, P. 2.....	370
24.3. LUGGAGE COMPARTMENT LIGHT — RIGHT AND LEFT, P. 3.....	371
24.4. TV/VCR WIRING, P. 4.....	372
24.5. BUNK SPEAKER VOLUME CONTROL, P. 5.....	373
25. LIGHT SYSTEMS (RHD — CHAPTER 11).....	374
25.1. BACK-UP LIGHTS, P. 1.....	374
25.2. CAB AND TRAILER LIGHTS SWITCH AND RELAYS WIRING, P. 2.....	375
25.3. CAB CLEARANCE AND IDENTIFICATION LIGHTS FLAT ROOF, P. 3.....	376
25.4. CAB DOME, READING AND COURTESY LIGHTS AND SWITCHES, P. 4.....	377
25.5. DRIVING LIGHT, P. 5.....	378
25.6. FOG LIGHT, P. 6.....	379
25.7. HEADLIGHTS, P. 7.....	380
25.8. PANEL LIGHTS, P. 8.....	381
25.9. PANEL LIGHTS, P. 9.....	382
25.10. FRONT TURN-PARK-MARKER AND SIDE TURN-MARKER LIGHTS, P. 10.....	383
25.11. STOP, TAIL TURN AND HAZARD SIGNAL LIGHTS, P. 11.....	384
25.12. TRAILER WORK (HOOK-UP) LIGHT BACK OF CAB MOUNTED, P. 12.....	385
25.13. TRAILER AUXILIARY LIGHT, P. 13.....	386
26. HEATER AND AIR CONDITIONER (CHAPTER 12).....	387
26.1. AIR CONDITIONER — CAB, P. 1.....	387
26.2. HEATER — CAB, P. 2.....	388
26.3. SLEEPER BUNK BLOWER, P. 3.....	389
26.4. HEATER — BUNK, P. 4.....	390
27. CONNECTOR COMPOSITES (RHD — CHAPTER 13).....	391
27.1. CONNECTOR COMPOSITES (2), (2A), (3M), (4F), P. 1.....	391
27.2. CONNECTOR COMPOSITES (4A), (8), (9), P. 2.....	392
27.3. CONNECTOR COMPOSITES (11), (13), (16), P. 3.....	393
27.4. CONNECTOR COMPOSITES (17M), (18), P. 4.....	394
27.5. CONNECTOR COMPOSITES (19), (19F), (20), P. 5.....	395
27.6. CONNECTOR COMPOSITES (21), (22), (24), P. 6.....	396
27.7. CONNECTOR COMPOSITES (25M), (26), (27), P. 7.....	397
27.8. CONNECTOR COMPOSITES (30F), (31), P. 8.....	398
27.9. CONNECTOR COMPOSITES (36M), (37M), (37F), P. 9.....	399
27.10. CONNECTOR COMPOSITES (39), (40M), P. 10.....	400
27.11. CONNECTOR COMPOSITES (42M), (43M), P. 11.....	401
27.12. CONNECTOR COMPOSITES (44M), (45F), (48F), P. 12.....	402
27.13. CONNECTOR COMPOSITES (51M), (52), (54), (55F), P. 13.....	403
27.14. CONNECTOR COMPOSITES (57), (69F), (70ML), (70FL), P. 14.....	404
27.15. CONNECTOR COMPOSITES — RIGHT GAUGE CLUSTER, P. 15.....	405
27.16. CONNECTOR COMPOSITES (72M), P. 16.....	406
27.17. CONNECTOR COMPOSITES — LEFT GAUGE CLUSTER, P. 17.....	407
27.18. CONNECTOR COMPOSITES (73M), P. 18.....	408
27.19. CONNECTOR COMPOSITES (76M), (77M), (80), P. 19.....	409
27.20. CONNECTOR COMPOSITES (80M), (81), (81M), P. 20.....	410
27.21. CONNECTOR COMPOSITES (83), (84), (86F), P. 21.....	411
27.22. CONNECTOR COMPOSITES (102), (102F), P. 22.....	412
27.23. CONNECTOR COMPOSITES (104F), (104M), (105F), (105M), (106M), P. 23.....	413
27.24. CONNECTOR COMPOSITES (108F), (109F), (111M), P. 24.....	414

27.25. CONNECTOR COMPOSITES (114), (114M), (116), P. 25.....	415
27.26. CONNECTOR COMPOSITES (116F), (122), (123), P. 26.....	416
27.27. CONNECTOR COMPOSITES (125), (125F), (127), (127A), P. 27.....	417
27.28. CONNECTOR COMPOSITES (128M), (129M), P. 28.....	418
27.29. CONNECTOR COMPOSITES (130M), (131M), P. 29.....	419
27.30. CONNECTOR COMPOSITES (132M), (133M), P. 30.....	420
27.31. CONNECTOR COMPOSITES (134F), (134M), (135M), P. 31.....	421
27.32. CONNECTOR COMPOSITES (154), (155), (156), P. 32.....	422
27.33. CONNECTOR COMPOSITES (157), (165), (166), (170F), (189M), P. 33.....	423
27.34. CONNECTOR COMPOSITES (201M), (207), (213M), P. 34.....	424
27.35. CONNECTOR COMPOSITES (214M), (216), (220M), (225), P. 35.....	425
27.36. CONNECTOR COMPOSITES (234M), (239M), P. 36.....	426
27.37. CONNECTOR COMPOSITES (240F), (241), P. 37.....	427
27.38. CONNECTOR COMPOSITES (242), (243), P. 38.....	428
27.39. CONNECTOR COMPOSITES (244M), (245), (255M), P. 39.....	429
27.40. CONNECTOR COMPOSITES (262F), (262M), P. 40.....	430
27.41. CONNECTOR COMPOSITES (263), P. 41.....	431
27.42. CONNECTOR COMPOSITES (265M), (284), (302), (306M), P. 42.....	432
27.43. CONNECTOR COMPOSITES (307F), (309), (316), (340), (342M), P. 43.....	433
27.44. CONNECTOR COMPOSITES (350), (351), (352), P. 44.....	434
27.45. CONNECTOR COMPOSITES (353), (354), (357), P. 45.....	435
27.46. CONNECTOR COMPOSITES (358), (359), (360), P. 46.....	436
27.47. CONNECTOR COMPOSITES (363F), (400F), (401F), (403F), (403M), P. 47.....	437
27.48. CONNECTOR COMPOSITES (409M), (410M), (411M), P. 48.....	438
27.49. CONNECTOR COMPOSITES (412M), (413M), (414M), P. 49.....	439
27.50. CONNECTOR COMPOSITES (415M), (416M), (417M), P. 50.....	440
27.51. CONNECTOR COMPOSITES (418M), (419M), P. 51.....	441
27.52. CONNECTOR COMPOSITES (420M), (423F), (428M), P. 52.....	442
27.53. CONNECTOR COMPOSITES (432M), P. 53.....	443
27.54. CONNECTOR COMPOSITES (434M), (437), (437M), P. 54.....	444
27.55. CONNECTOR COMPOSITES (439M), (440M), (441M), (442M), P. 55.....	445
27.56. CONNECTOR COMPOSITES (443M), (444M), (445M), (446M), P. 56.....	446
27.57. CONNECTOR COMPOSITES (447M), (449M), P. 57.....	447
27.58. CONNECTOR COMPOSITES (452), (452M), (454), P. 58.....	448
27.59. CONNECTOR COMPOSITES (454M), (455M), (456M), P. 59.....	449
27.60. CONNECTOR COMPOSITES (462M, F1 — F4 FUSEBLOCKS), P. 60.....	450
27.61. CONNECTOR COMPOSITES (462M, F5 FUSEBLOCK), P. 61.....	451
27.62. CONNECTOR COMPOSITES (462M, RELAYS), P. 62.....	452
27.63. CONNECTOR COMPOSITES (463M, F6 — F8 FUSEBLOCKS), P. 63.....	453
27.64. CONNECTOR COMPOSITES (463M, RELAYS), P. 64.....	454
27.65. CONNECTOR COMPOSITES (464M, F10 FUSEBLOCK), P. 65.....	455
27.66. CONNECTOR COMPOSITES (464M, F11 FUSEBLOCK), P. 66.....	456
27.67. CONNECTOR COMPOSITES (464M, RELAYS), P. 67.....	457
27.68. CONNECTOR COMPOSITES (476M), (477M), (480M), P. 68.....	458
27.69. CONNECTOR COMPOSITES (481M), (483M), (484M), P. 69.....	459
27.70. CONNECTOR COMPOSITES (), P. 70.....	460
27.71. CONNECTOR COMPOSITES (494M), (495M), P. 71.....	461
27.72. CONNECTOR COMPOSITES (496M), P. 72.....	462
27.73. CONNECTOR COMPOSITES (498M), (501M), (504M), (505M), P. 73.....	463
27.74. CONNECTOR COMPOSITES (506M), (507M), P. 74.....	464
27.75. CONNECTOR COMPOSITES (508M), (509M), P. 75.....	465
27.76. CONNECTOR COMPOSITES (514M), (515M), (516M), P. 76.....	466
27.77. CONNECTOR COMPOSITES (517M), (518M), P. 77.....	467

27.78. CONNECTOR COMPOSITES (529M), (533M), (535F), P. 78.....	468
27.79. CONNECTOR COMPOSITES (535), P. 79.....	469
27.80. CONNECTOR COMPOSITES (544), (546), P. 80.....	470
27.81. CONNECTOR COMPOSITES (548M), (551), (552), P. 81.....	471
27.82. CONNECTOR COMPOSITES (557), (557F), P. 82.....	472
27.83. CONNECTOR COMPOSITES (558), (558M), (559), P. 83.....	473
27.84. CONNECTOR COMPOSITES (560), (561), P. 84.....	474
27.85. CONNECTOR COMPOSITES (562), (563), P. 85.....	475
27.86. CONNECTOR COMPOSITES (564), (568), (569), (570), (571), P. 86.....	476
27.87. CONNECTOR COMPOSITES (572M), (575), (576), P. 87.....	477
27.88. CONNECTOR COMPOSITES (577), (581M), (586M), P. 88.....	478
27.89. CONNECTOR COMPOSITES (587), (587M), P. 89.....	479
27.90. CONNECTOR COMPOSITES (589M), (591F), P. 90.....	480
27.91. CONNECTOR COMPOSITES (592M), (593M), P. 91.....	481
27.92. CONNECTOR COMPOSITES (595M), (601M), (602M), P. 92.....	482
27.93. CONNECTOR COMPOSITES (607M), (612), (613), P. 93.....	483
27.94. CONNECTOR COMPOSITES (625F), (625M), P. 94.....	484
27.95. CONNECTOR COMPOSITES (627), P. 95.....	485
27.96. CONNECTOR COMPOSITES (645M), (662M), (675), P. 96.....	486
27.97. CONNECTOR COMPOSITES (675A), (675B), (690), P. 97.....	487
27.98. CONNECTOR COMPOSITES (724M), (725M), (726M), P. 98.....	488
27.99. CONNECTOR COMPOSITES (709M), (732), (751F), P. 99.....	489
27.100. CONNECTOR COMPOSITES (764), (765), (766–770), (775M), P. 100.....	490
27.101. CONNECTOR COMPOSITES (780F), (780M), (900C), (908M), P. 101.....	491
27.102. CONNECTOR COMPOSITES (923), P. 102.....	492
27.103. CONNECTOR COMPOSITES (924), (925), (926), P. 103.....	493
27.104. CONNECTOR COMPOSITES (927), (928), (951F), P. 104.....	494
27.105. CONNECTOR COMPOSITES (955), P. 105.....	495
27.106. CONNECTOR COMPOSITES (959), (960C), (960D), (960M), P. 106.....	496
27.107. CONNECTOR COMPOSITES (960M), (960T), (960U), (960V), P. 107.....	497
27.108. CONNECTOR COMPOSITES (960F), (961), (961A), (961B), (962M), P. 108.....	498
27.109. CONNECTOR COMPOSITES (963), (963F), (964E), (964M), P. 109.....	499
27.110. CONNECTOR COMPOSITES (965F), (965M), (984), P. 110.....	500
27.111. CONNECTOR COMPOSITES (1030M), (1031M), (1032M), P. 111.....	501
27.112. CONNECTOR COMPOSITES (1033A), (1033M), (1034A), (1034M), P. 112.....	502
27.113. CONNECTOR COMPOSITES (1037), (1040), (1041), (1042), P. 113.....	503
27.114. CONNECTOR COMPOSITES (1093), P. 114.....	504
27.115. CONNECTOR COMPOSITES (1189), P. 115.....	505
27.116. CONNECTOR COMPOSITES (1239C), (1239E), P. 116.....	506
 28. POWER DISTRIBUTION LAYOUT (RHD — CHAPTER 14).....	 507
28.1. FUSE AND CIRCUIT BREAKER LOCATION, P. 1.....	507
28.2. FUSE AND CIRCUIT BREAKER LOCATION (CONT.), P. 2.....	508
28.3. FUSE AND CIRCUIT BREAKER LOCATION (CONT.), P. 3.....	509

1. INSTRUCTIONS AND CHARTS (LHD — CHAPTER 1)

1.1. CIRCUIT IDENTIFICATION CHART, P. 1

INTERNATIONAL TRUCK AND ENGINE CORPORATION

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ELECTRICAL CIRCUIT DIAGRAM

INTERNATIONAL CIRCUIT NUMBER IDENTIFICATION & COLOR

CHAPTER 1

CIRCUIT NUMBER AND IDENTIFICATION

CIRCUIT NUMBER	COLOR	DESCRIPTION
1	LTBL	ALTERNATOR-FIELD
2	RD	ALTERNATOR-CHARGE
3	DKBL GY	170B DATA LINK, SWITCH DATA LINK (+) 170B DATA LINK, SWITCH DATA LINK (-)
4		SERIAL/DATA COMMUNICATION J1922
5	YL GN	DRIVE TRAIN J1939 DATA LINK (+) DRIVE TRAIN J1939 DATA LINK (-)
6	GY	
7	RD	ALTERNATOR-RESISTANCE
8		
9	GY	ZERO VOLT REFERENCE (ZVR)
10	WH	CHASSIS/ENGINE GROUND
11	WH	CAB/SLEEPER GROUND
12	LTBL	ACCESSORY
13	PK BK	IGNITION FEED IGNITION FEED (BODY BUILDER CONNECTOR)
14	RD	BATTERY FEED
15	RD	KEY SWITCH FEED
16		
17	PK	STARTER CONTROL
18	PK	GLOW PLUG/PRE-HEATER
19	GY	ENGINE SHUTDOWN
20	LTGN	REMOTE POWER MODULE
21	TN	COLD START CONTROLS (ETHER)
22		
23	TN	ENGINE FAN/SHUTTERS
24	GY	ENGINE EXHAUST BRAKE
25	TN	PYROMETER
26	TN	AMMETER
27	TN	VOLTMETER
28	TN	INSTRUMENTS & GAUGES
29	TN	ENGINE WATER TEMPERATURE
30	TN	ENGINE OIL TEMPERATURE
31	TN	TRANSMISSION OIL TEMPERATURE
32	TN	AXLE OIL TEMPERATURE
33	TN	ENGINE OIL LEVEL
34	TN	COOLANT LEVEL
35	TN	ENGINE OIL PRESSURE
36	TN	FUEL LEVEL
37	TN	FUEL PUMP
38		
39	GY	AIR DRYER HEATER
40	GY	LOW AIR PRESSURE WARNING
41	TN	AIR TEMPERATURE
42	GY	FRONT AXLE ENGAGED
43	GY	POWER DIVIDER LOCK (PDL) WARNING
44	GY	PARK BRAKE WARNING
45	LTGN	ANTI-THEFT WARNING
46	GY	POWER TAKE-OFF WARNING
47	GY	SPEEDOMETER
48	GY	TACHOMETER
49	GY	DIFFERENTIAL LOCK WARNING

CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME
21MAY05		REVISED & REDRAWN.	B	59381N	RRUEPKE	INSTRUCTIONS AND CHARTS FOR ALL MODELS
					RELEASE NO.	DATE
					P52600M	29JUL98
					PART NO.	SHEET
					AE08-52011	01

Figure 1 Circuit Identification Chart, page 1

1.2. CIRCUIT IDENTIFICATION CHART, P. 2

INTERNATIONAL TRUCK AND ENGINE CORPORATION

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ELECTRICAL CIRCUIT DIAGRAM

CHAPTER 1

INTERNATIONAL CIRCUIT NUMBER IDENTIFICATION & COLOR

CIRCUIT NUMBER AND IDENTIFICATION (CONT.)

CIRCUIT NUMBER	COLOR	DESCRIPTION
50	YL	LIGHT SWITCH FEED
51	YL	DIMMER SWITCH FEED
52	YL	HEADLIGHT HI-BEAM
53	YL	HEADLIGHT LO-BEAM
54	BN	PARKING/MARKERS LIGHTS
55	OR	TURN SIGNAL - FEED
56	OR	TURN SIGNAL LIGHTS-LEFT
	YL	TURN SIGNAL LIGHTS-LEFT (BODY BUILDER CONNECTION)
57	OR	TURN SIGNAL LIGHTS-RIGHT
	LT GN	TURN SIGNAL LIGHTS-RIGHT (BODY BUILDER CONNECTION)
58	BN	CLEARANCE/IDENTIFICATION LIGHTS
59	GY	SOLENOID
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		
68	BN	TAIL LIGHTS
69	BN	LICENSE PLATE LIGHT
70	OR	STOP LIGHTS
	RD	STOP LIGHTS (BODY BUILDER CONNECTION)
71	OR	BACKUP LIGHTS
	LTBL	BACKUP LIGHTS (BODY BUILDER CONNECTION)
72	OR	TRAILER AUXILIARY FEED-BATTERY
73	LTGN	PWM
74	LTGN	HEATER RECIRCULATING MOTOR
75	LTGN	HEATER BLOWER MOTOR
76	LTGN	AUXILIARY FAN
77	LTGN	AIR CONDITIONER
78	LTGN	MIRRORS - HEATED MOTORIZED
79	GY	SEAT BELTS
80	BK	SLEEPER BOX RELAY-FEED
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-ELECTRONIC
93	TN	AXLE SHIFT CONTROL
94	GY	ANTILOCK BRAKE SYSTEM
95	TN	EXHAUST EMISSION
96	YL	SNOW PLOW LIGHTS /CRUISE CONTROLS

CHK	DATE	CHANGE	REV	REFERENCE	DRASH	NAME
2	MAY05	REVISED & REDRAWN.	C	59381N	RROEPKE	INSTRUCTIONS AND CHARTS FOR ALL MODELS
					RELEASE NO. P52600M	DATE 29JUL98
					PART NO. AE08-52011	SHEET 02

Figure 2 Circuit Identification Chart, page 2

1.3. CIRCUIT IDENTIFICATION CHART, P. 3

INTERNATIONAL TRUCK AND ENGINE CORPORATION 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.				ELECTRICAL CIRCUIT DIAGRAM CHAPTER 1 INTERNATIONAL CIRCUIT NUMBER IDENTIFICATION & COLOR																																																
<p>CIRCUIT NUMBER AND IDENTIFICATION (CONT.)</p> <table border="1" style="margin: auto; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">CIRCUIT NUMBER</th> <th style="text-align: center;">COLOR</th> <th style="text-align: center;">DESCRIPTION</th> </tr> </thead> <tbody> <tr><td style="text-align: center;">97</td><td style="text-align: center;">VT</td><td>ENGINE CONTROLS-ELECTRONIC</td></tr> <tr><td style="text-align: center;">98</td><td style="text-align: center;">BK</td><td>DATALINK AND DIAGNOSTICS</td></tr> <tr><td style="text-align: center;">99</td><td style="text-align: center;">VT</td><td>ACCELERATOR POSITION SENSOR (APS)</td></tr> <tr><td style="text-align: center;">100</td><td style="text-align: center;">GY</td><td>AIR HORN (ELECTRONIC SOLENOID ACTUATED)</td></tr> <tr><td style="text-align: center;">101</td><td style="text-align: center;">TN</td><td>BRAKE APPLICATION AIR</td></tr> <tr><td style="text-align: center;">102</td><td style="text-align: center;">YL</td><td>FLASH TO PASS</td></tr> <tr><td style="text-align: center;">103</td><td style="text-align: center;">LTGN</td><td>BODY BUILDER AUX FEED</td></tr> <tr><td style="text-align: center;">104</td><td style="text-align: center;">DKBL</td><td>REMOTE START/STOP</td></tr> <tr><td style="text-align: center;">105</td><td style="text-align: center;">LTGN</td><td>HEATED SEATS</td></tr> <tr><td style="text-align: center;">106</td><td style="text-align: center;">GY</td><td>5V SUPPLY FROM INSTRUMENT CLUSTER</td></tr> <tr><td style="text-align: center;">107</td><td style="text-align: center;">TN</td><td>BRAKE WEAR SENSOR</td></tr> <tr><td style="text-align: center;">108</td><td style="text-align: center;">TN</td><td>BRAKE STROKE/SLACK ADJUSTER</td></tr> <tr><td style="text-align: center;">109</td><td style="text-align: center;">GY</td><td>ZERO VOLT REF FROM GAUGE CLUSTER</td></tr> <tr><td style="text-align: center;">110</td><td style="text-align: center;">TN</td><td>FUEL FILTER SENSOR</td></tr> </tbody> </table>								CIRCUIT NUMBER	COLOR	DESCRIPTION	97	VT	ENGINE CONTROLS-ELECTRONIC	98	BK	DATALINK AND DIAGNOSTICS	99	VT	ACCELERATOR POSITION SENSOR (APS)	100	GY	AIR HORN (ELECTRONIC SOLENOID ACTUATED)	101	TN	BRAKE APPLICATION AIR	102	YL	FLASH TO PASS	103	LTGN	BODY BUILDER AUX FEED	104	DKBL	REMOTE START/STOP	105	LTGN	HEATED SEATS	106	GY	5V SUPPLY FROM INSTRUMENT CLUSTER	107	TN	BRAKE WEAR SENSOR	108	TN	BRAKE STROKE/SLACK ADJUSTER	109	GY	ZERO VOLT REF FROM GAUGE CLUSTER	110	TN	FUEL FILTER SENSOR
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					RELEASE NO. P52600M	DATE 29JUL98	PART NO. AE08-52011 SHEET 03																																													

Figure 3 Circuit Identification Chart, page 3

1.4. CIRCUIT NUMBER IDENTIFICATION AND COLOR, P. 4

INTERNATIONAL TRUCK AND ENGINE CORPORATION <small>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.</small>				ELECTRICAL CIRCUIT DIAGRAM CHAPTER 1 INTERNATIONAL CIRCUIT NUMBER IDENTIFICATION & COLOR																																																																																							
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Figure 4 Circuit Number Identification and Color

1.5. CIRCUIT DIAGRAM INSTRUCTION, P. 5

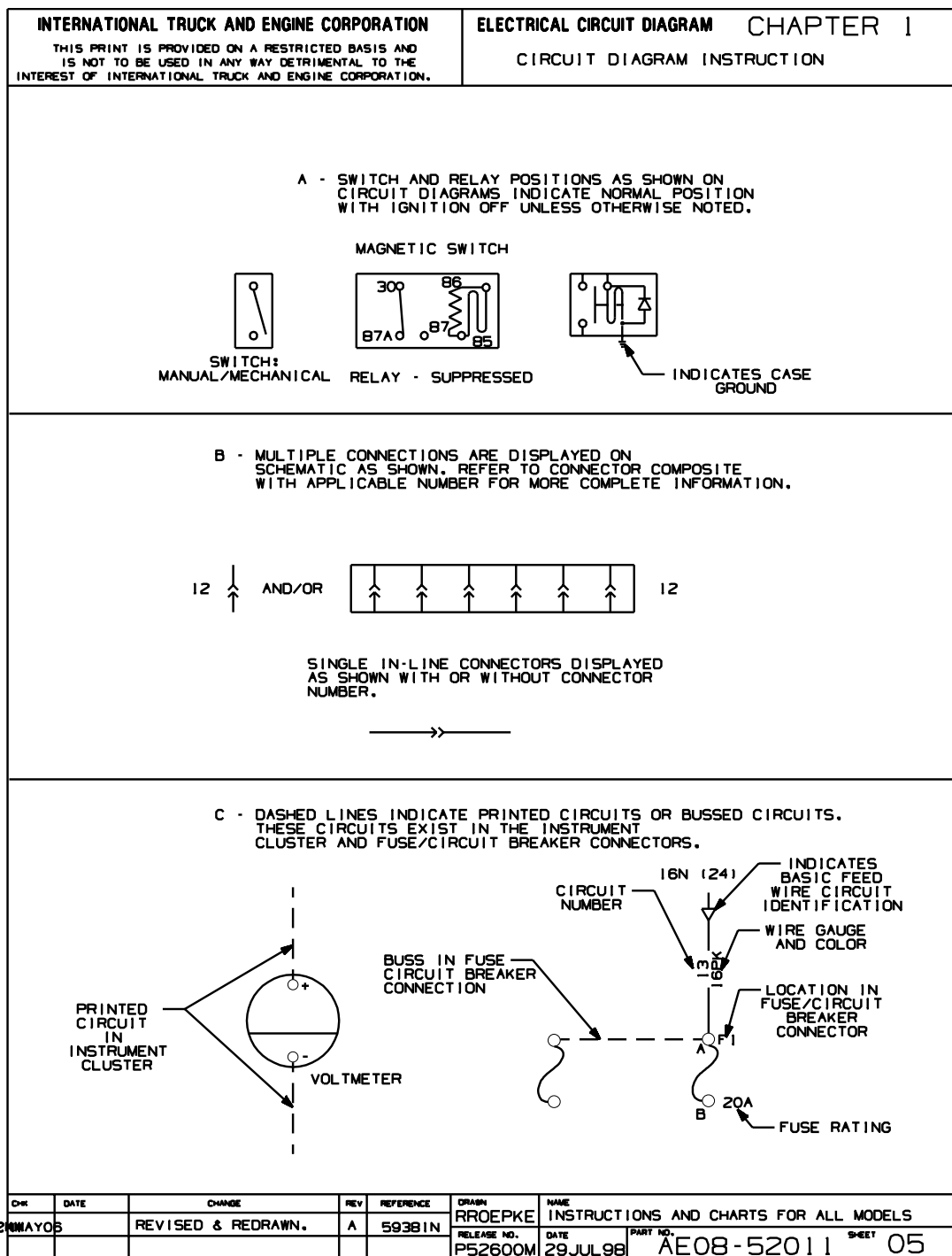


Figure 5 Circuit Diagram Instruction

1.6. CIRCUIT DIAGRAM INSTRUCTION, P. 6

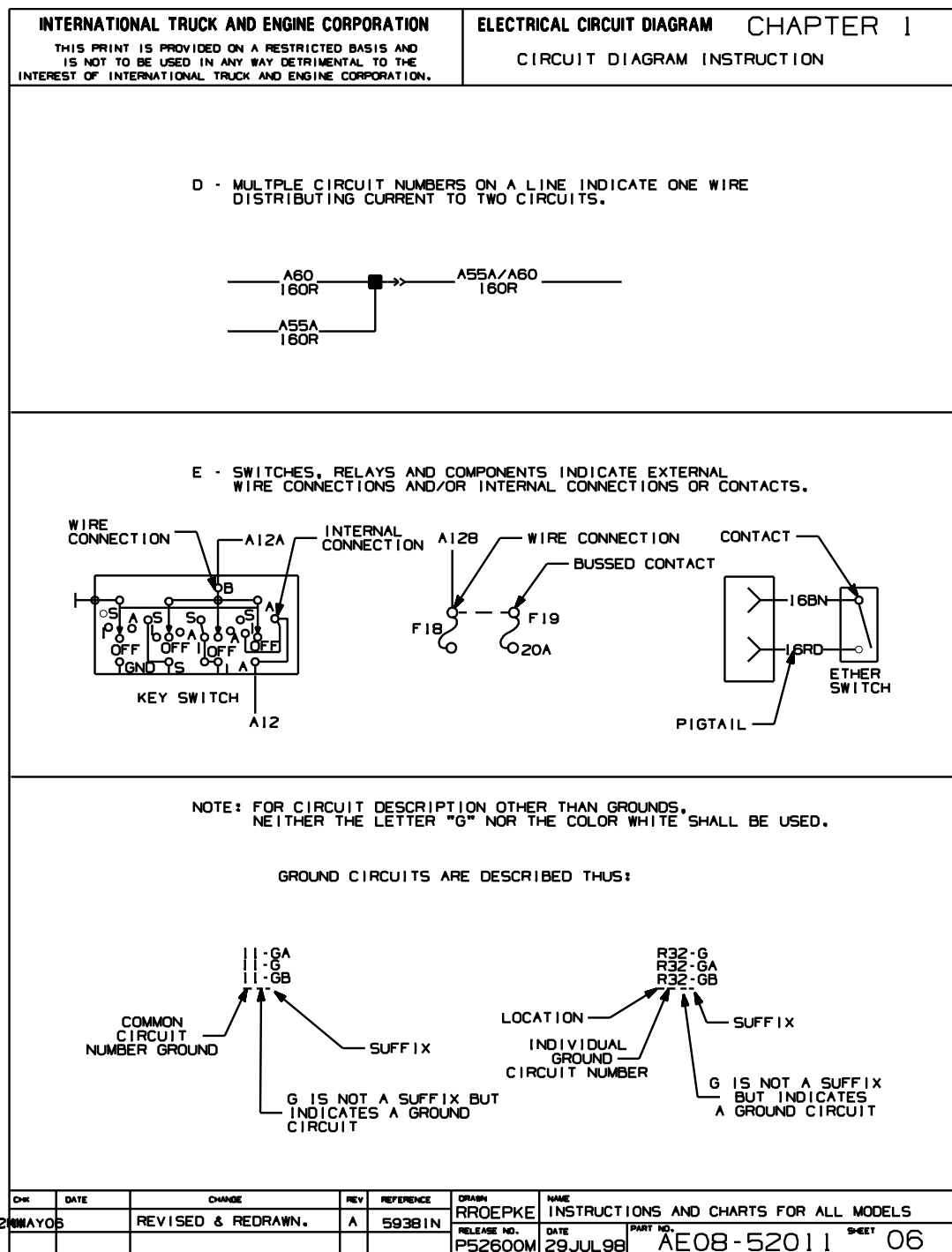


Figure 6 Circuit Diagram Instruction

1.7. RELAY FUNCTIONS AND WIRING GUIDE, P. 7

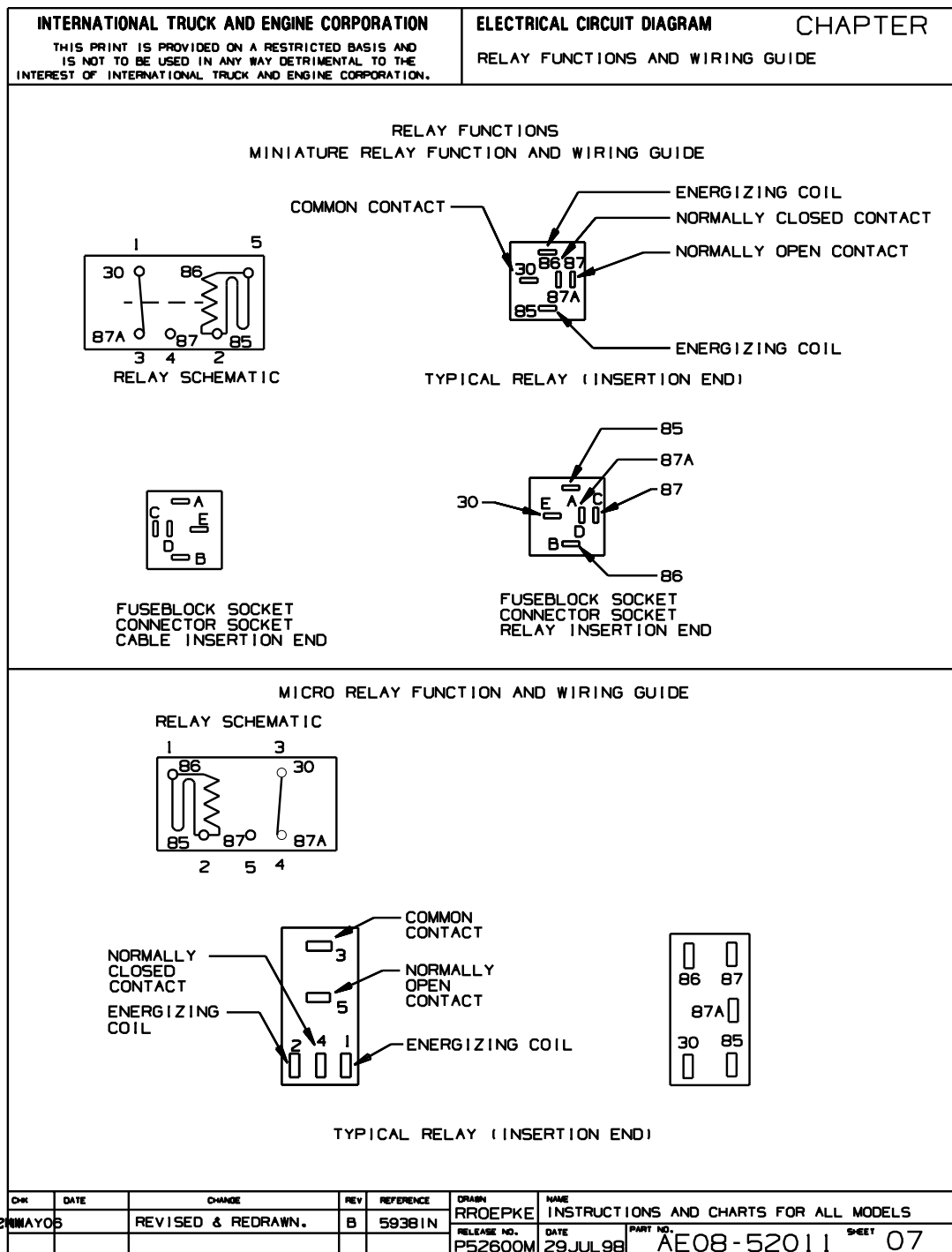


Figure 7 Relay Functions and Wiring Guide

1.8. RELAY FUNCTIONS AND WIRING GUIDE, P. 8

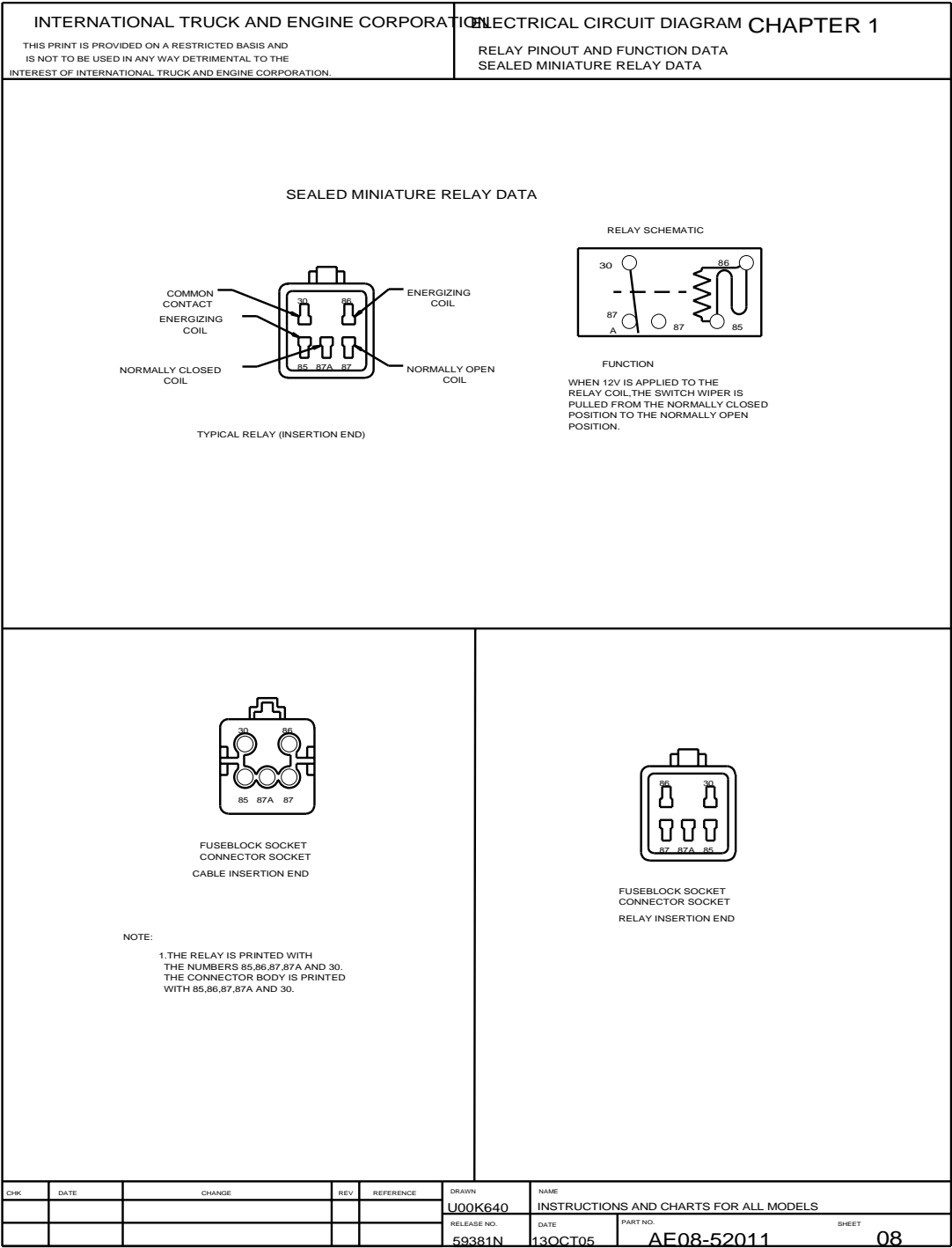


Figure 8 Relay Functions and Wiring Guide

1.9. SCHEMATIC SYMBOL CHART, P. 9

INTERNATIONAL TRUCK AND ENGINE CORPORATION				ELECTRICAL CIRCUIT DIAGRAM				CHAPTER 1			
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.				SCHEMATIC SYMBOL CHART							
</											

Figure 9 Schematic Symbol Chart

1.10. SCHEMATIC SYMBOL CHART, P. 10












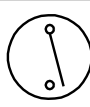


INTERNATIONAL TRUCK AND ENGINE CORPORATION

ELECTRICAL CIRCUIT DIAGRAM

CHAPTER 1

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SCHEMATIC SYMBOL CHART

SYMBOL	DESCRIPTION
	MALE/FEMALE IN-LINE CONNECTION
	FEMALE TERMINAL
	MALE TERMINAL
	GROUND
	FUSE
	LIGHT EMITTING DIODE
	RESISTOR
	SWITCH CONTACT NORMALLY OPEN
	SWITCH CONTACT NORMALLY CLOSED
	JUNCTION POINT
	SPLICE
	SWITCH-PRESSURE
	SWITCH MANUAL/MECHANICAL
	SOLENOID GENERAL USAGE

CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME	
					U00K640	INSTRUCTIONS AND CHARTS FOR ALL MODELS	
					RELEASE NO.	DATE	PART NO.
					59381N	13OCT05	AE08-52011
							SHEET
							10

Figure 10 Schematic Symbol Chart

1.11. SCHEMATIC SYMBOL CHART, P. 11








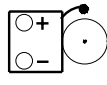

INTERNATIONAL TRUCK AND ENGINE CORPORATION				ELECTRICAL CIRCUIT DIAGRAM CHAPTER 1			
THIS PRINT IS PROVIDED ON A RESTRICTED BASIS AND IS NOT TO BE USED IN ANY WAY DETRIMENTAL TO THE INTEREST OF INTERNATIONAL TRUCK AND ENGINE CORPORATION.				SCHEMATIC SYMBOL CHART			
SYMBOL				DESCRIPTION			
TYPE 1 				TYPE 2 OR 3 			
				CIRCUIT BREAKER			
				DIODE			
				FUSEABLE LINK			
				SWITCH-PUSH BUTTON			
				SWITCH-WITH LIGHT			
				ACCELERATOR POSITION SENSOR			
				ALARM-ELECTRONIC			
				FLASHER-TURN SIGNAL, HAZARD			
CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME	
					U00K640	INSTRUCTIONS AND CHARTS FOR ALL MODELS	
					RELEASE NO.	DATE	PART NO.
					59381N	13OCT05	AF08-52011
							SHEET 11

Figure 11 Schematic Symbol Chart

1.12. LAMP BULB CHART, P. 12

INTERNATIONAL TRUCK AND ENGINE CORPORATION				ELECTRICAL CIRCUIT DIAGRAM CHAPTER 1			
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.				LAMP BULB CHART			
SR.NO	BULB APPLICATION	CANDLE POWER OR WATTS	BULB TRADE NUMBER				
1	BACK-UP LIGHTS	32 CANDLEPOWER	GE1156				
2	CLEARANCE & IDENTIFICATION SMALL	3 CANDLEPOWER	GE168				
3	COURTESY LIGHT	21 CANDLEPOWER	1142				
4	DOVE LIGHTS	21 CANDLEPOWER	1142				
5	FOG LIGHTS	100 WATT	4921-1				
6	LOW BEAMS	55 WATT	GE9007				
7	HIGH BEAMS	60 WATT	GE9007				
8	CIGAR LIGHTER	1 CANDLEPOWER	1455				
9	GAUGE BACK LIGHT	2 CANDLEPOWER	194				
10	GAUGE WARNING LED (RED)	2 CANDLEPOWER	194				
11	COLD AMBIENT PROTECTION LED (RED)	2 CANDLEPOWER	194				
12	FUEL FILTER LED (YELLOW)	2 CANDLEPOWER	194				
13	WARN ENGINE LED (YELLOW)	2 CANDLEPOWER	194				
14	STOP ENGINE LED (RED)	2 CANDLEPOWER	194				
15	BRAKE PRESSURE LED	2 CANDLEPOWER	194				
16	CHECK TRANSMISSION LED	2 CANDLEPOWER	194				
17	TRAILER ABS LED	2 CANDLEPOWER	194				
18	WASHER FLUID LED	2 CANDLEPOWER	194				
19	LEFT TURN SIGNAL LED (GREEN)	2 CANDLEPOWER	194				
20	TRACTION CONTROL LED (GREEN)	2 CANDLEPOWER	194				
21	WATER IN FUEL LED (YELLOW)	2 CANDLEPOWER	194				
22	PARK FLUID LED LIGHT (RED)	2 CANDLEPOWER	194				
23	CHECK ELECTRICAL SYSTEMS LED (YELLOW)	2 CANDLEPOWER	194				
24	PARK BRAKE LED (RED)	2 CANDLEPOWER	194				
25	CRUISE CONTROL ACTIVE LED (YELLOW)	2 CANDLEPOWER	194				
26	ANTILOCK BRAKING SYSTEM LED (YELLOW)	2 CANDLEPOWER	194				
27	RIGHT TURN LED (GREEN)	2 CANDLEPOWER	194				
28	COOLANT LEVEL LED (RED)	2 CANDLEPOWER	194				
29	SEAT BELT LED (RED)	2 CANDLEPOWER	194				
30	HIGH BEAM ICON LEAD (BLUE)	2 CANDLEPOWER	53				
31	CHECK AIR CONDITIONER LED (YELLOW)	2 CANDLEPOWER	82S272109-4				
32	MAP LIGHT	3 CANDLEPOWER	1816				
33	SIDE MARKER		2548				
34	STOP & TURN/TAIL & LICENSE PLATE	32/3 CANDLEPOWER	3157				
35	TURN SIGNAL/MARKER (FENDER)	32/3 CANDLEPOWER	3157				
36	TURN SIGNAL & MARKER LIGHT		2356				
37	WORK (TRAILER HOOK)	35 WATTS	4411				
38	BACK-UP LIGHTS/UPPER AND LOWER BUNK READING LIGHT	15 CANDLEPOWER	1003				
39	CABINET/WARDROBE LIGHT	5W	7575				
40	UNDER BUNK LIGHT	21 CP/2(12CP)	577/211				
41	ACCENT LIGHT	2(12CP)	211				
42	DOVE LIGHT LAMP	15 WATT	F15T8-CW				
43	SLEEPER FLOOR LIGHT	4 CP	W5W				
44	HEATER AND AIR CONDITIONER CONTROL	3 CANDLEPOWER	168				
45	LUGGAGE COMPARTMENT LIGHT	6 CANDLEPOWER	99				
46	READING LIGHT	15 CANDLEPOWER	1003				
CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME	
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					59381N	13OCT05	AE08-52011
						SHEET	12

Figure 12 Lamp Bulb Chart

1.13. EATON AUTO SHIFT, P. 13

INTERNATIONAL TRUCK AND ENGINE CORPORATION				ELECTRICAL CIRCUIT DIAGRAM CHAPTER 1			
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.				EATON AUTO SHIFT			

J1 EATON XMSN HARNESS (EATON SUPPLIED)		
Term	DESCRIPTION	NOTES
A1	RAIL SELECT SENSOR	
A2	RAIL SELECT SENSOR	
A3	RAIL SELECT SENSOR	
B1	GEAR SELECT SENSOR	
B2	GEAR SELECT SENSOR	
B3	GEAR SELECT SENSOR	
D1	OUTPUT SHAFT SPEED SENSOR	
D2	OUTPUT SHAFT SPEED SENSOR	
E1	MAIN SHAFT SPEED SENSOR	FOR 10 AND 18 SPEED
E2	MAIN SHAFT SPEED SENSOR	FOR 10 AND 18 SPEED
F1	RANGE VALVE	FOR 10 AND 18 SPEED
F2	RANGE VALVE	FOR 10 AND 18 SPEED
F3	RANGE VALVE	FOR 10 AND 18 SPEED
G1	SPLITTER VALVE	FOR 18 SPEED ONLY
G2	SPLITTER VALVE	FOR 18 SPEED ONLY
G3	SPLITTER VALVE	FOR 18 SPEED ONLY
H1	INERTIA BRAKE	WITH 6 AND 7 SPEED, OPTIONAL WITH 10 AND 18 SPEED
H2	INERTIA BRAKE	WITH 6 AND 7 SPEED, OPTIONAL WITH 10 AND 18 SPEED
J1	INPUT SHAFT SPEED SENSOR	
J2	TORQUE CONVERTER	18 SPEED AST
J3	TORQUE CONVERTER	18 SPEED AST
K1	INPUT SHAFT SPEED SENSOR	
K2	TORQUE CONVERTER	18 SPEED AST
K3	TORQUE CONVERTER	18 SPEED AST

J2 VEHICLE INTERFACE HARNESS		
Term	DESCRIPTION	NOTES
A1	BATTERY (+)	
A2	ATA + (1587)	
A3	GROUND	
B1	TRANSMISSION BATTERY (+)	
B2	ATA - (1587)	
B3	GROUND	
C1	EATON PROPRIETARY LINK (EPL +)	
C2	EATON PROPRIETARY LINK (EPL -)	
C3	EATON PROPRIETARY LINK (EPL SHIELD)	
D1	AUX SPEED 1 +	
D2	AUX SPEED 1 -	
D3	AUX INPUT 2	INPUT, LOW SIDE
E1	BATTERY (+)	
E2	TRANSMISSION BATTERY (+)	
E3	AUX INPUT 2	RETURN
F1	AUX INPUT 1	INPUT, LOW SIDE
F2	AUX INPUT 1	RETURN
F3	AUX OUTPUT 1	OUTPUT, LOW SIDE DRIVER

CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME
					U00K640	INSTRUCTIONS AND CHARTS FOR ALL MODELS
					RELEASE NO.	DATE
					59381N	13OCT05
						PART NO.
						AE08-52011
						SHEET
						13

Figure 13 Eaton Auto Shift

1.14. EATON AUTO SHIFT, P. 14

INTERNATIONAL TRUCK AND ENGINE CORPORATION

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ELECTRICAL CIRCUIT DIAGRAM

EATON AUTO SHIFT (CONT..)

CHAPTER 1

J3 POWER AND MOTOR CONNECTORS (EATON SUPPLIED)		
Term	DESCRIPTION	NOTES
J3-B1	MAIN POWER +	MAIN POWER +
J3-A1	MAIN POWER -	
J3-B2	RAIL SELECT MOTOR +	
J3-A2	RAIL SELECT MOTOR -	
J3-B3	GEAR SELECT MOTOR +	
J3-A3	GEAR SELECT MOTOR -	
J1 SHIFT CONTROL CONNECTOR		
Term	DESCRIPTION	NOTES
A1	AUX INPUT/OUTPUT 3	I/O, LOW SIDE DRIVER
A2	START ENABLE LATCH	
A3	START ENABLE RELAY (-)	
B1	AUX INPUT 5	RETURN
B2	ATA + (1587)	
B3	VDASH	
C1	IGNITION	
C2	ATA - (1587)	
C3	START ENABLE RELAY (+)	
D1	AUX INPUT 5	INPUT, LOW SIDE
D2	AUX INPUT 6	INPUT, LOW SIDE
D3	AUX OUTPUT 3	OUTPUT, LOW SIDE DRIVER
E1	GEAR DISPLAY CLOCK	
E2	GEAR DISPLAY DATA	
E3	GEAR DISPLAY	
F1	EATON PROPRIETARY LINK (EPL +)	
F2	EATON PROPRIETARY LINK (EPL -)	
F3	EATON PROPRIETARY LINK (EPL SHIELD)	
G1	J1939 (+)	
G2	J1939 (-)	
G3	J1939 SHIELD	
H1	AUX INPUT 6	RETURN
H2	AUX OUTPUT 2	OUTPUT, HI/LO SIDE DRIVER
H3	AUX INPUT/OUTPUT 4	I/O, LOW SIDE DRIVER
J1	BATTERY (+)	
J2	TRANSMISSION BATTERY (+)	
J3	GROUND	
K1	BATTERY (+)	
K2	TRANSMISSION BATTERY (+)	
K3	GROUND	

CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME	
					U00K640	INSTRUCTIONS AND CHARTS FOR ALL MODELS	
					RELEASE NO.	DATE	PART NO.
					59381N	13OCT05	AE08-52011

14

Figure 14 Eaton Auto Shift

1.15. 31-PIN OEM CONNECTOR INTERFACE, P. 15

INTERNATIONAL TRUCK AND ENGINE CORPORATION					ELECTRICAL CIRCUIT DIAGRAM					CHAPTER 1				
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.					31 PIN OEM CONNECTOR INTERFACE									
31-PIN OEM CONNECTOR INTERFACES														
PIN	PINOUT TYPE				SIGNAL NAME									
1	5V SENSOR VOLTAGE SOURCE				NOT USED									
2	RATIOMETRIC ANALOG INPUT				NOT USED									
3	ECM SWITCH RETURN				IS TEMP RETURN									
4	RESISTIVE ANALOG INPUT				IS TEMPERATURE									
5	5V SWITCHED PULLUP INPUT				COOLANT DETECTED									
6	5V SWITCHED PULLUP INPUT				COOLANT NOT DETECTED									
7	5V SENSOR VOLTAGE SOURCE				COOLANT LEVEL SUPPLY									
8	SWITCHED SOURCE DRIVER OUTPUT				TOP2 SHIFT SOLENOID									
9	SWITCHED SOURCE DRIVER OUTPUT				TOP2 LOCKOUT SOLENOID									
10	SWITCHED SOURCE DRIVER OUTPUT				NOT USED									
11	ECM SOLENOID RETURN				TOP2 RETURN									
12	SWITCHED SOURCE DRIVER OUTPUT				FAN 1 ON/OFF									
					FAN 1 VARIABLE									
	SELECTABLE PINOUT				FAN 1 HIGH/LOW/OFF #1									
13	ECM SOLENOID RETURN				FAN SIGNAL RETURN									
14	5V SENSOR VOLTAGE SOURCE				NOT USED									
15	HALL EFFECT INPUT				TACHOGRAPH									
16	ECM SWITCH RETURN				NOT USED									
17	10V SWITCHED PULLUP INPUT				AC PRESSURE SWITCH									
18	ECM SWITCH RETURN				AC PRESSURE RETURN									
19	ECM SWITCH RETURN				COOLANT LEVEL RETURN									
20	SWITCHED SINK DRIVER OUTPUT				STARTER LOCKOUT RELAY									
	RECONFIGURABLE PINOUT				ICON STARTER RELAY LOW									
					AUTOSTART INTERLOCK OUT									
21	VARIABLE RELUCTANCE INPUT (+)				MAGNETIC PICKUP VSS (+)									
					MECHANICAL VSS (+)									
22	VARIABLE RELUCTANCE INPUT (-)				MAGNETIC PICKUP VSS (-)									
					MECHANICAL VSS (-)									
					DIGITAL VSS									
23	RESISTIVE ANALOG INPUT				NOT USED									
24	ECM SWITCH RETURN				ALTERNATE RETURN									
25	10V SWITCHED PULLUP INPUT				REMOTE OIL LEVEL SWITCH									
26	NO CONNECTION				NOT USED									
27	SWITCHED SOURCE DRIVER OUTPUT 1				ICON STARTER RELAY HIGH									
28	ECM SWITCH RETURN				ALARM RETURN									
29	SWITCHED SOURCE DRIVER OUTPUT				FAN 1 HIGH/LOW/OFF #2									
SELECTABLE PINOUT														
					FAN 2 ON/OFF									
					FAN 2 VARIABLE									
	RECONFIGURABLE PINOUT				ALARM									
30	5V SWITCHED PULLUP INPUT				TORQUE LIMIT SWITCH									
31	5V SWITCHED PULLUP INPUT				NOT USED									
ENGINE BRAKE RELAY CONNECTOR INTERFACES														
PIN	PINOUT TYPE				SIGNAL NAME									
1	SWITCHED SOURCE DRIVER OUTPUT				ENGINE BRAKE RELAY									
2	ECM SOLENOID RETURN				ENGINE BRAKE RELAY RETURN									

CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME								
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					59381N	13OCT05	AE08-52011		15					

Figure 15 31-Pin OEM Connector Interface

1.16. 31-PIN OEM CONNECTOR INTERFACE, P. 16

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ELECTRICAL CIRCUIT DIAGRAM

CHAPTER 1

31-PIN OEM CONNECTOR INTERFACE (CONT..)

WIF SENSOR CONNECTOR INTERFACES		
PIN	PINOUT TYPE	SIGNAL NAME
1	ECM SWITCH RETURN	WIF SENSOR RETURN
2	WIF RESISTIVE ANALOG INPUT	WIF SENSOR
E-GOVERNOR CONNECTOR INTERFACES		
PIN	PINOUT TYPE	SIGNAL NAME
1	5V SENSOR VOLTAGE SOURCE	WET TANK SUPPLY
2	ECM SWITCH RETURN	WET TANK SUPPLY RETURN
3	RATOMETRIC ANALOG INPUT	WET TANK PRESSURE
4	OUNPERED TO 3113-27)	ICON STARTER RELAY HIGH
5	SWITCHED SOURCE DRIVER OUTPUT	E-GOVERNOR VALVE
	RECONFIGURABLE PINOUT	ICON STARTER RELAY HIGH
6	ECM SOLENOID RETURN	E-GOVERNOR VALVE RETURN
THERMOSTAT CONNECTOR 1 INTERFACES		
PIN	PINOUT TYPE	SIGNAL NAME
1	THERMOSTAT SUPPLY	THERMOSTAT SUPPLY
2	THERMOSTAT RETURN	THERMOSTAT RETURN
3	THERMOSTAT SINK DRIVER OUTPUT	THERMOSTAT DATA
4	THERMOSTAT PULLDOWN INPUT	THERMOSTAT ENABLE
THERMOSTAT CONNECTOR 2 INTERFACES		
PIN	PINOUT TYPE	SIGNAL NAME
1	THERMOSTAT ANALOG INPUT HIGH	ICON TEMPERATURE
2	NO CONNECTION	NOT USED
3	THERMOSTAT ANALOG INPUT LOW	ICON TEMP RETURN

CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME	
					U00K640	INSTRUCTIONS AND CHARTS FOR ALL MODELS	
					RELEASE NO.	DATE	PART NO.
					59381N	13OCT05	AE08-52011
							SHEET
							16

Figure 16 31-Pin OEM Connector Interface

1.17. ABS ECU PIN CONFIGURATION, P. 17

INTERNATIONAL TRUCK AND ENGINE CORPORATION				ELECTRICAL CIRCUIT DIAGRAM CHAPTER 1																																																																			
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<table border="1" style="margin: auto; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center;">30 PIN CONNECTOR</th> </tr> <tr> <th style="text-align: center;">PIN NUMBER</th> <th style="text-align: center;">DESCRIPTION</th> </tr> </thead> <tbody> <tr><td>A1</td><td>GROUND</td></tr> <tr><td>A2</td><td>GROUND</td></tr> <tr><td>A3</td><td>GROUND</td></tr> <tr><td>B1</td><td>BATTERY</td></tr> <tr><td>B2</td><td>J1922 A1</td></tr> <tr><td>B3</td><td>J1922 B1</td></tr> <tr><td>C1</td><td>RIGHT FRONT MODULATOR COMMON</td></tr> <tr><td>C2</td><td>TRACTION CONTROL WARNING LAMP</td></tr> <tr><td>C3</td><td>J1939 HIGH</td></tr> <tr><td>D1</td><td>RIGHT FRONT MODULATOR HOLD</td></tr> <tr><td>D2</td><td>J1939 SHIELD</td></tr> <tr><td>D3</td><td>J1939 LOW</td></tr> <tr><td>E1</td><td>RIGHT FRONT MODULATOR EXHAUST</td></tr> <tr><td>E2</td><td>TRAILER ABS WARNING LAMP</td></tr> <tr><td>E3</td><td>ABS WARNING LAMP</td></tr> <tr><td>F1</td><td>LEFT FRONT MODULATOR EXHAUST</td></tr> <tr><td>F2</td><td>TRACTION ENABLE/DISABLE SWITCH</td></tr> <tr><td>F3</td><td>BLINK CODE SWITCH</td></tr> <tr><td>G1</td><td>LEFT FRONT MODULATOR HOLD</td></tr> <tr><td>G2</td><td>J1587 A</td></tr> <tr><td>G3</td><td>J1587 B</td></tr> <tr><td>H1</td><td>LEFT FRONT MODULATOR COMMON</td></tr> <tr><td>H2</td><td>RIGHT FRONT WHEEL SPEED SENSOR SIGNAL</td></tr> <tr><td>H3</td><td>RIGHT FRONT WHEEL SPEED SENSOR RETURN</td></tr> <tr><td>J1</td><td>LEFT FRONT WHEEL SPEED SENSOR SIGNAL</td></tr> <tr><td>J2</td><td>LEFT FRONT WHEEL SPEED SENSOR RETURN</td></tr> <tr><td>J3</td><td>PLUG</td></tr> <tr><td>K1</td><td>RETARDER DISABLE</td></tr> <tr><td>K2</td><td>BATTERY</td></tr> <tr><td>K3</td><td>BATTERY</td></tr> </tbody> </table>								30 PIN CONNECTOR		PIN NUMBER	DESCRIPTION	A1	GROUND	A2	GROUND	A3	GROUND	B1	BATTERY	B2	J1922 A1	B3	J1922 B1	C1	RIGHT FRONT MODULATOR COMMON	C2	TRACTION CONTROL WARNING LAMP	C3	J1939 HIGH	D1	RIGHT FRONT MODULATOR HOLD	D2	J1939 SHIELD	D3	J1939 LOW	E1	RIGHT FRONT MODULATOR EXHAUST	E2	TRAILER ABS WARNING LAMP	E3	ABS WARNING LAMP	F1	LEFT FRONT MODULATOR EXHAUST	F2	TRACTION ENABLE/DISABLE SWITCH	F3	BLINK CODE SWITCH	G1	LEFT FRONT MODULATOR HOLD	G2	J1587 A	G3	J1587 B	H1	LEFT FRONT MODULATOR COMMON	H2	RIGHT FRONT WHEEL SPEED SENSOR SIGNAL	H3	RIGHT FRONT WHEEL SPEED SENSOR RETURN	J1	LEFT FRONT WHEEL SPEED SENSOR SIGNAL	J2	LEFT FRONT WHEEL SPEED SENSOR RETURN	J3	PLUG	K1	RETARDER DISABLE	K2	BATTERY	K3	BATTERY
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Figure 17 ABS ECU Pin Configuration

1.18. ABS ECU PIN CONFIGURATION, P. 18

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Figure 18 ABS ECU Pin Configuration

2. 12 VOLT POWER DISTRIBUTION CIRCUIT DIAGRAMS (LHD — CHAPTER 2)

2.1. START FEED, P. 1

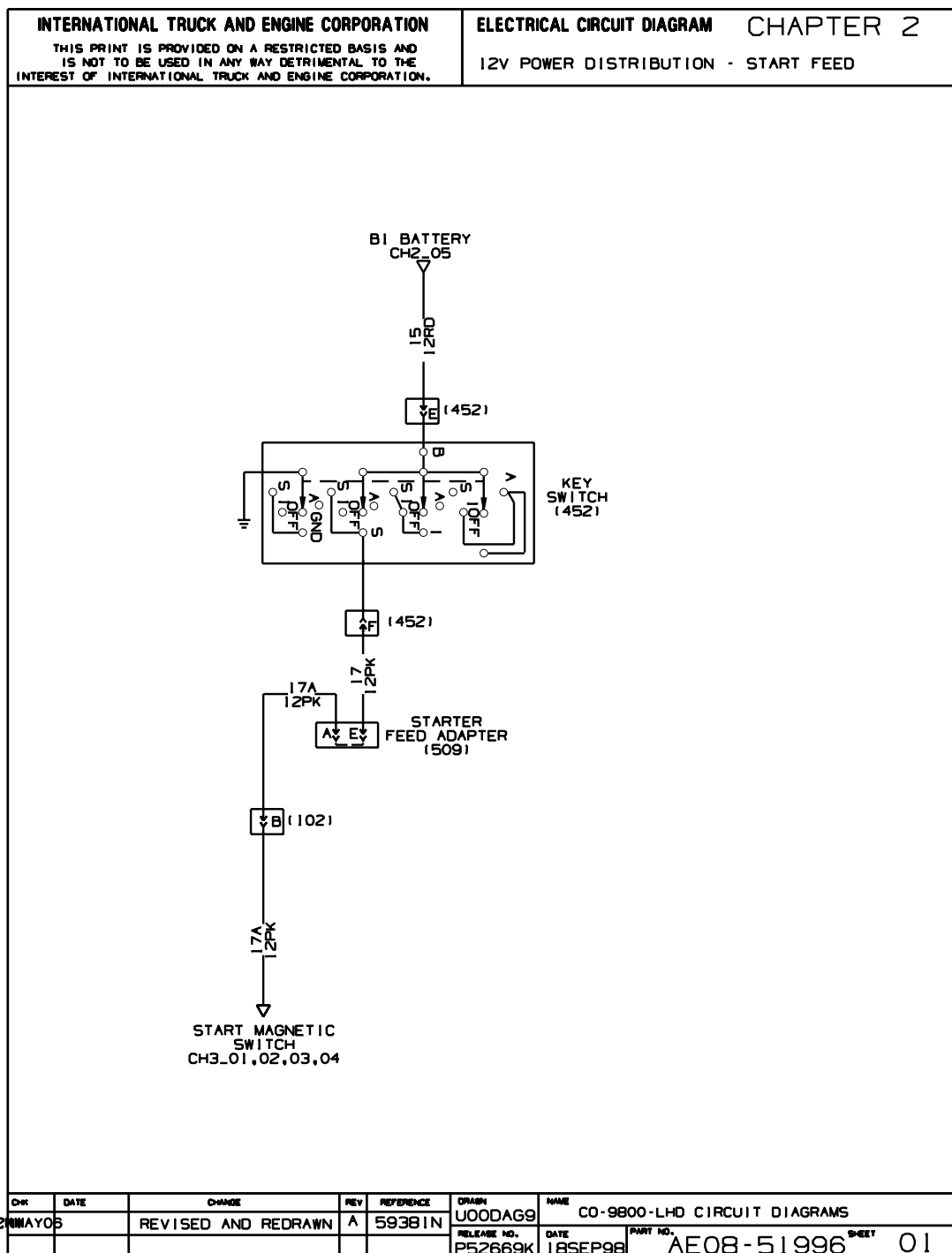


Figure 19 Start Feed

2.2. START FEED, P. 2

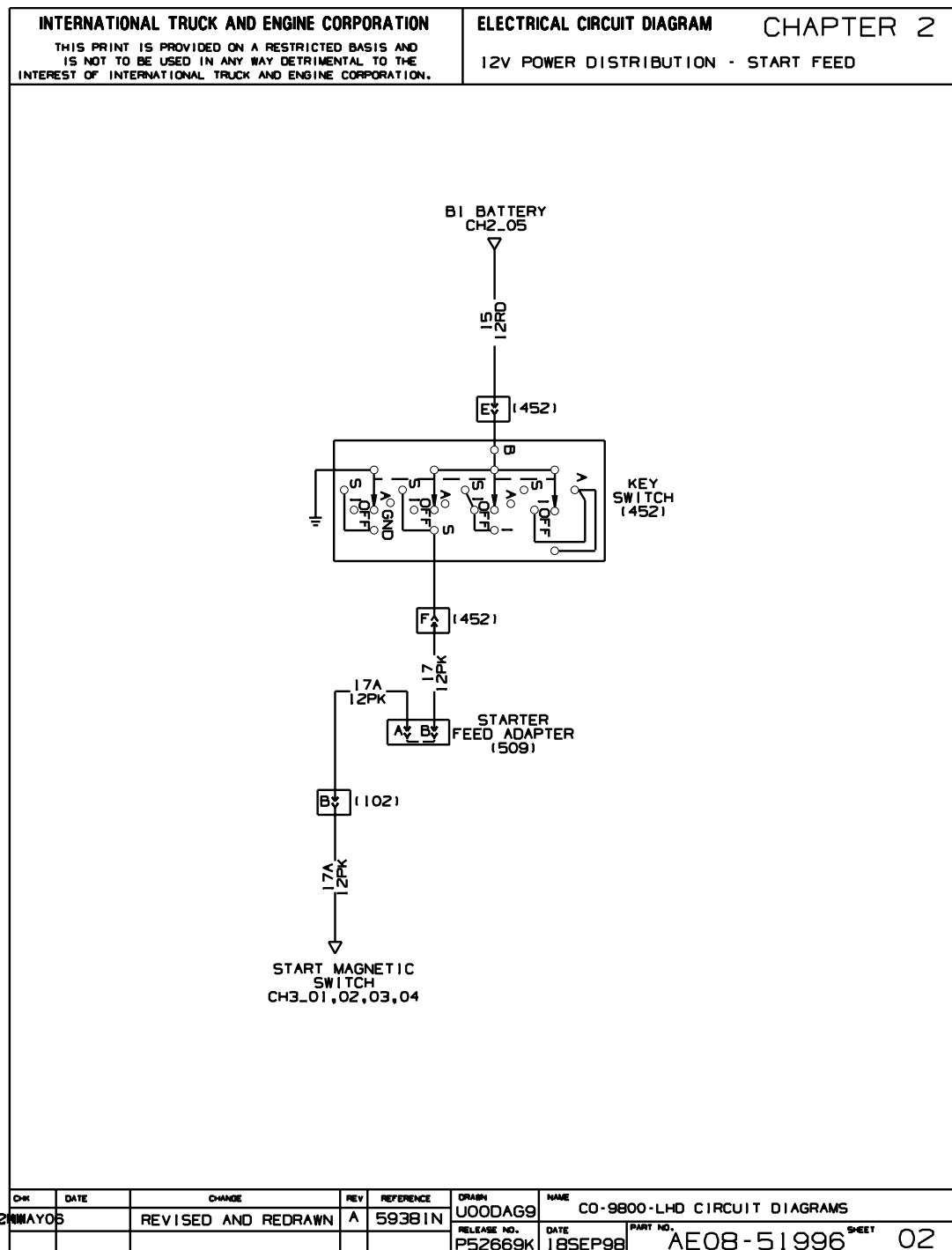


Figure 20 Start Feed

2.3. START FEED WITH EATON TRANSMISSION, P. 3

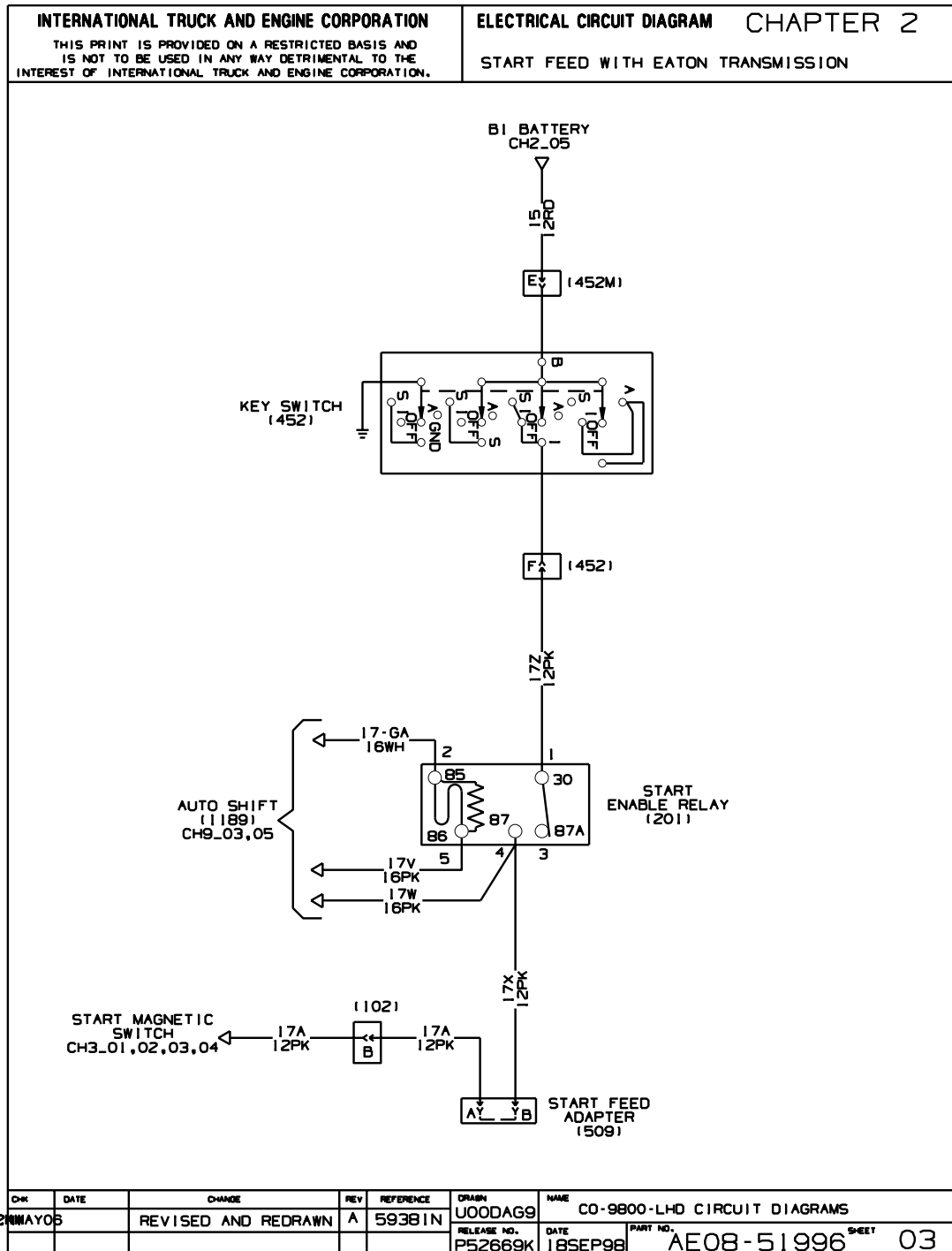


Figure 21 Start Feed with Eaton Transmission

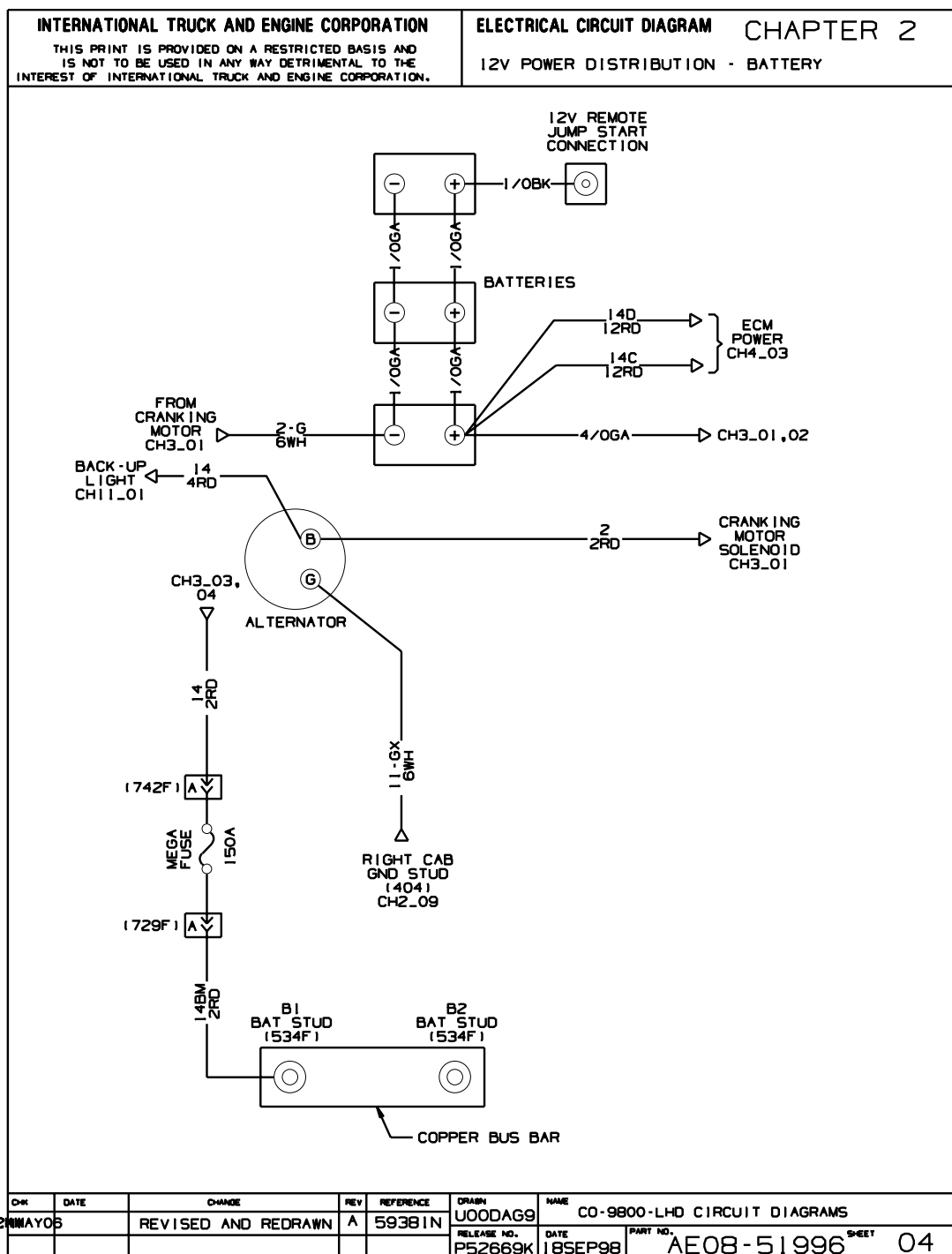


Figure 22 Battery

2.5. BATTERY, B1, P. 5

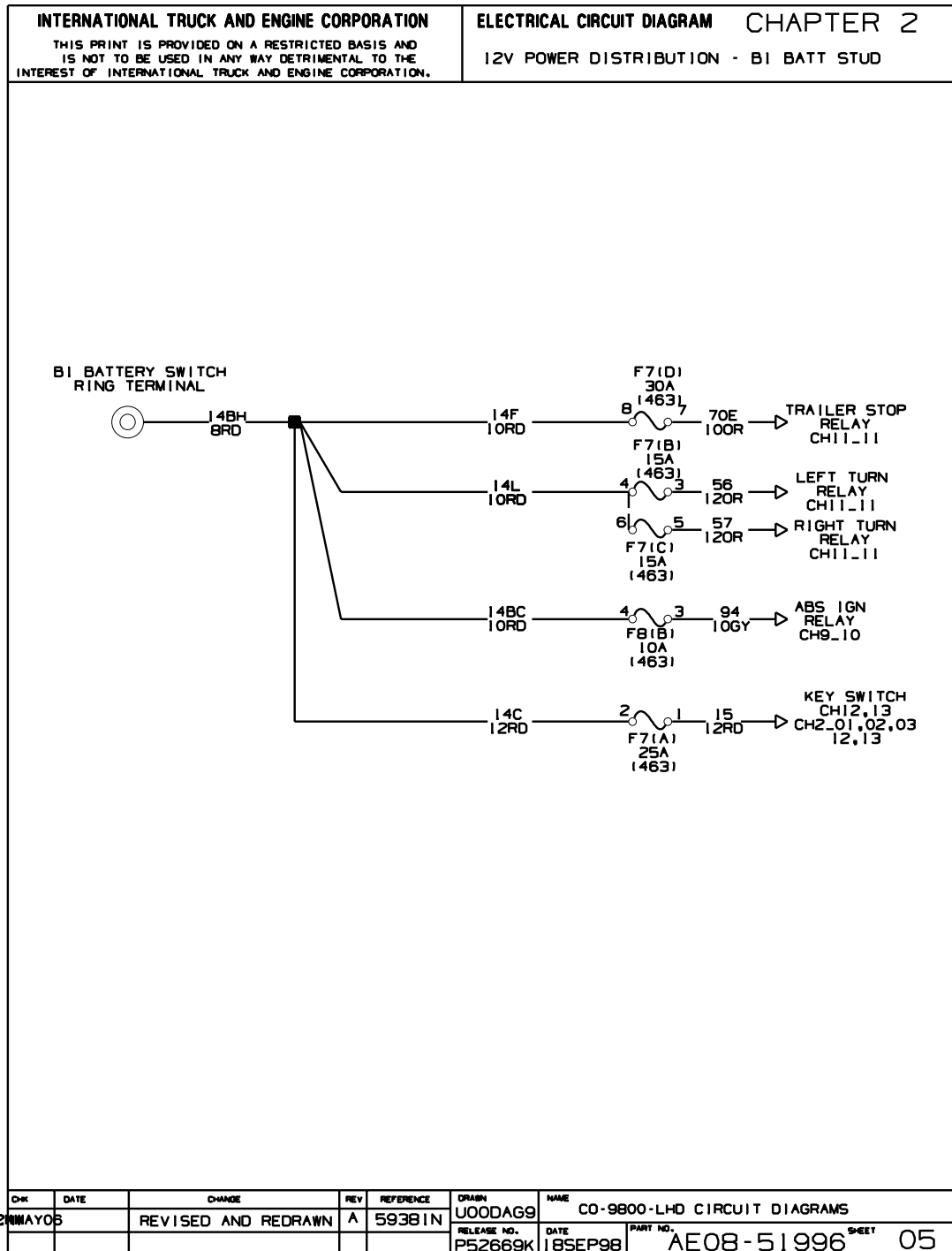


Figure 23 Battery, B1

2.6. BATTERY, B1, P. 6

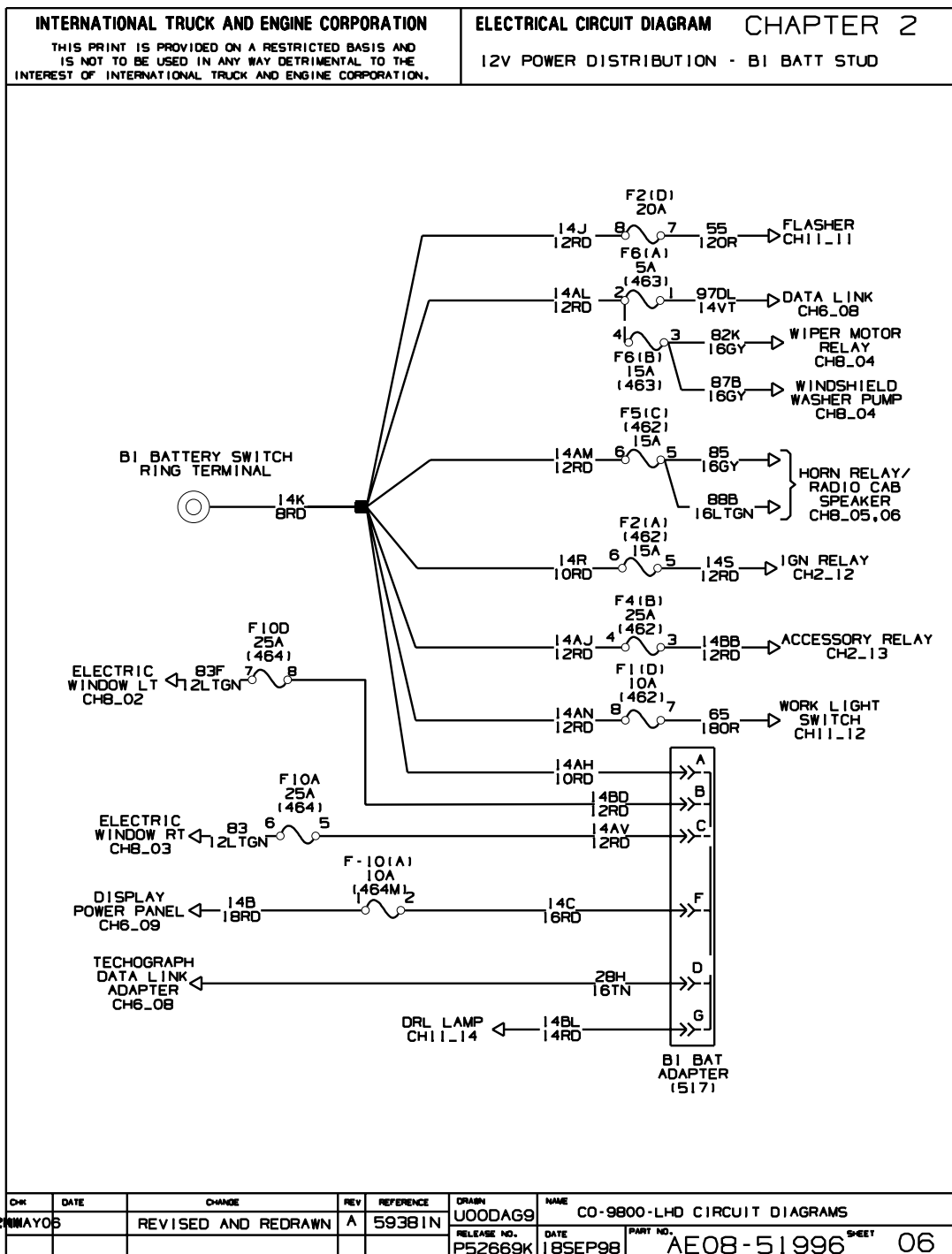


Figure 24 Battery, B1

2.7. BATTERY, B2, P. 7

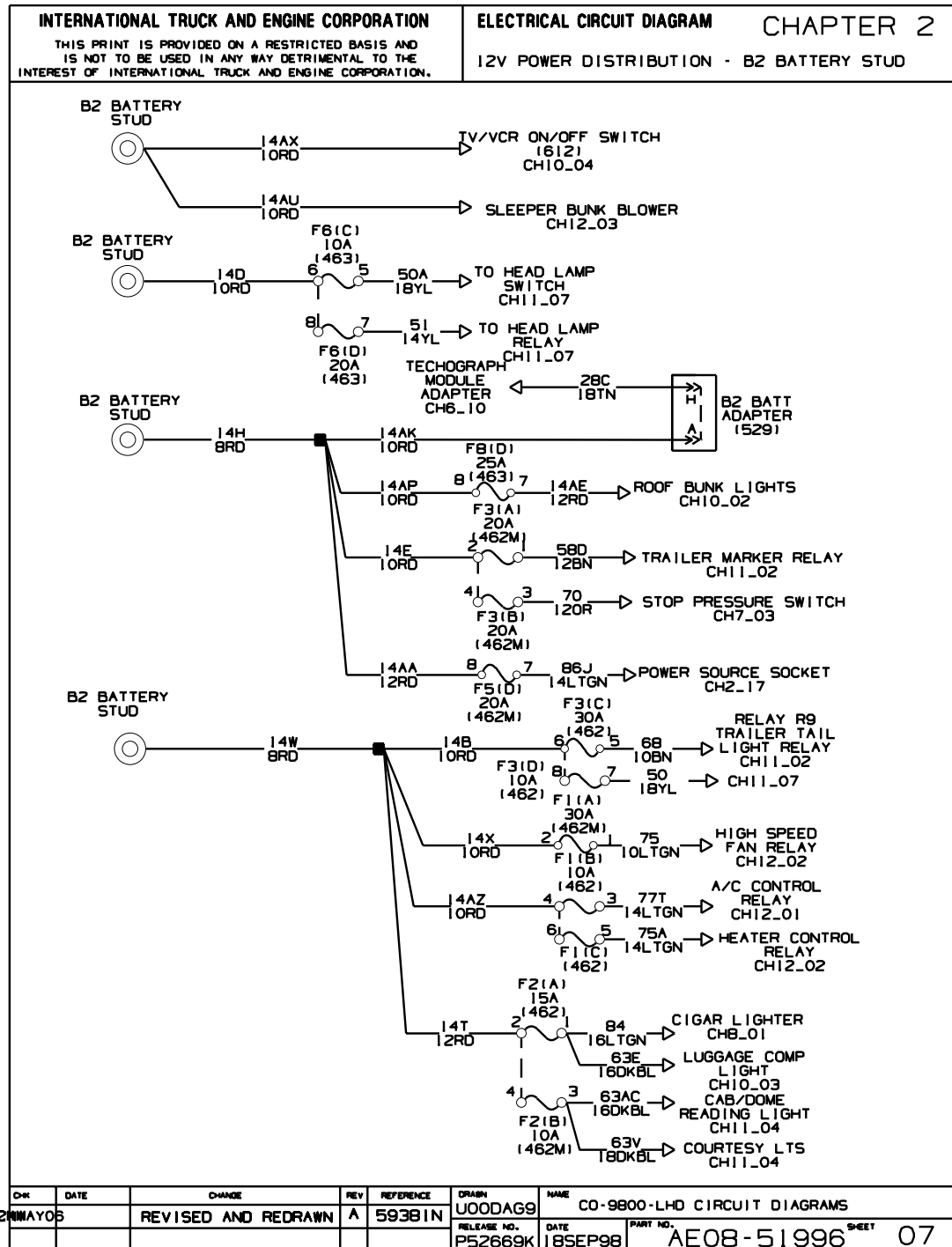


Figure 25 Battery, B2

2.8. GROUND, P. 8

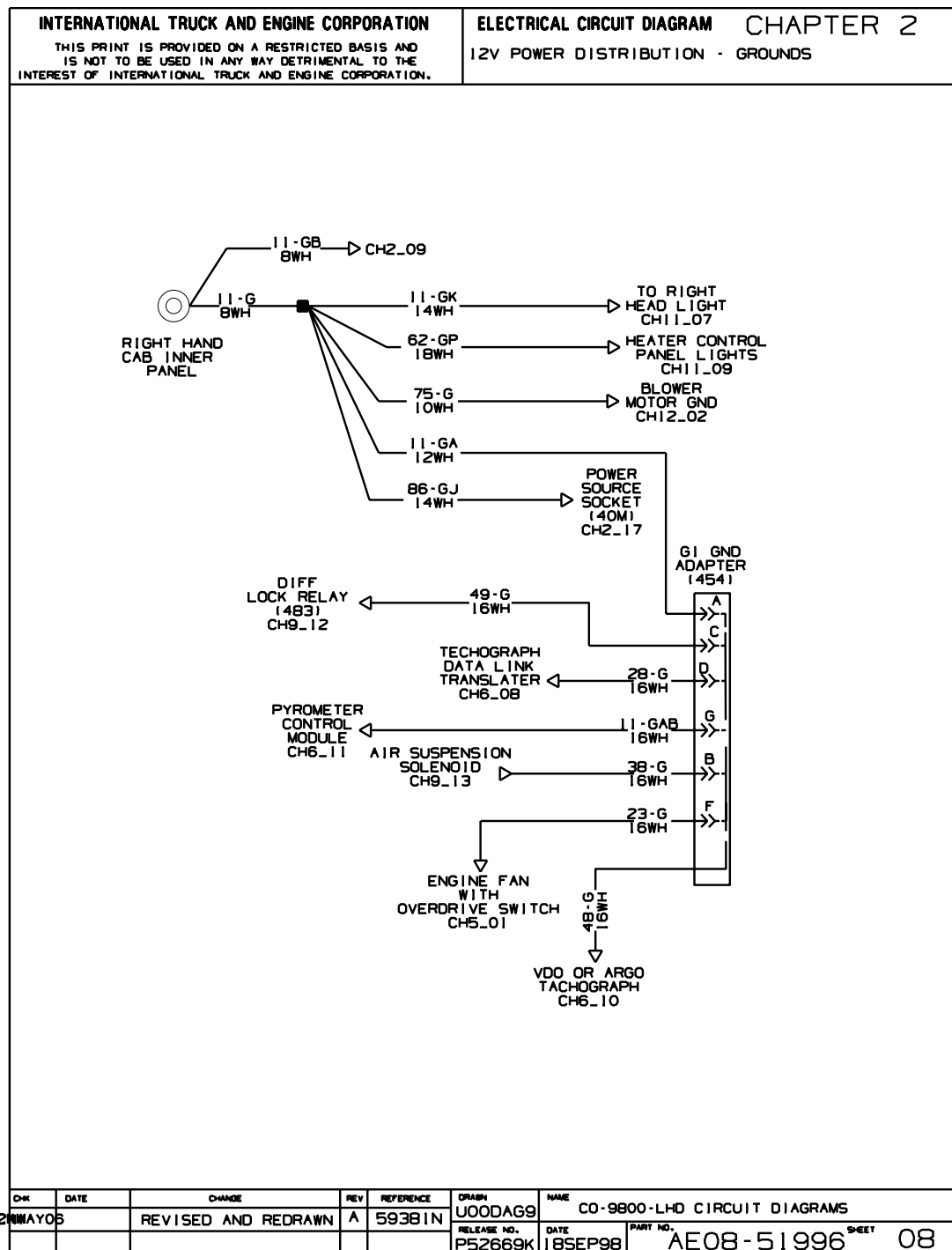


Figure 26 Ground

2.9. GROUND, P. 9

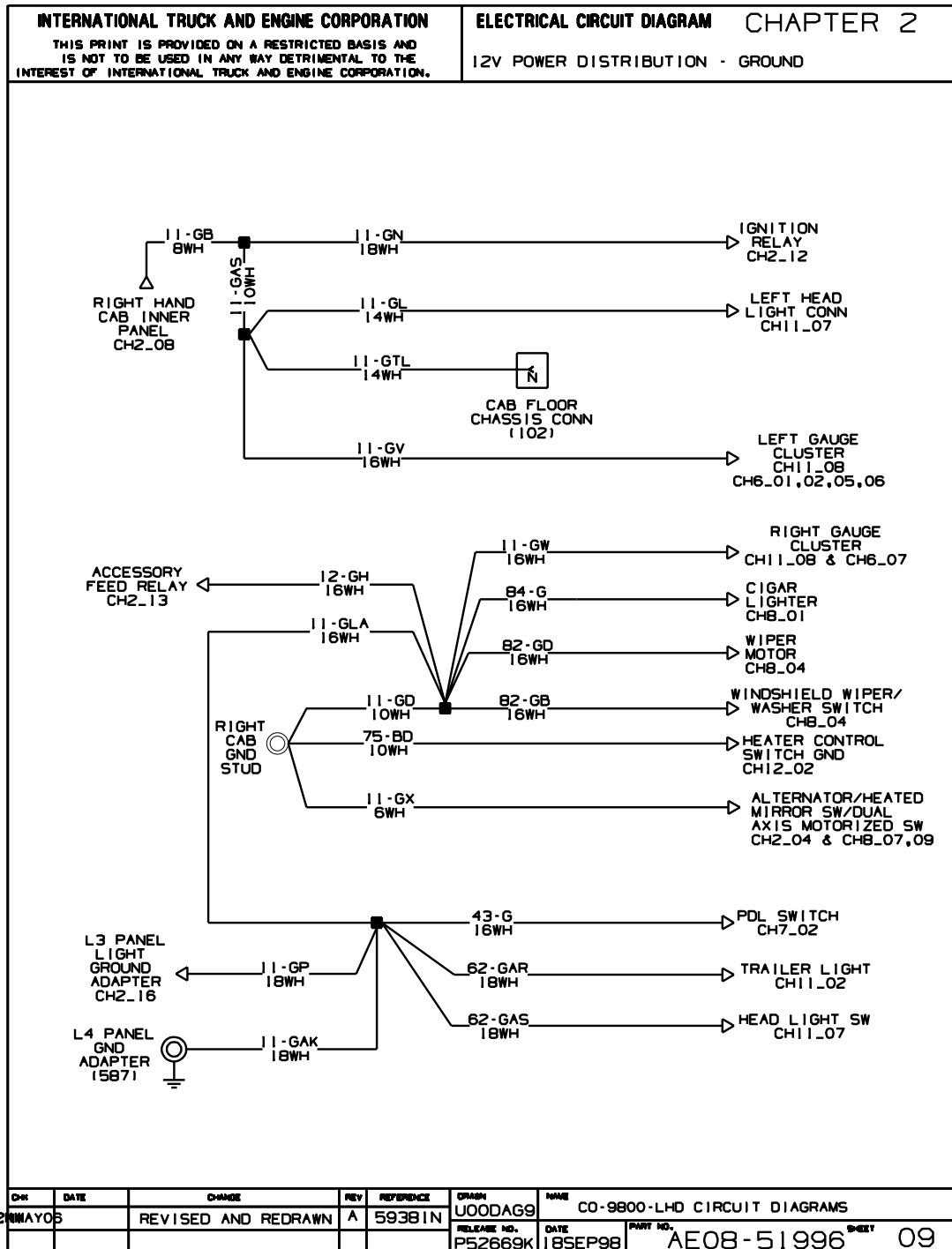


Figure 27 Ground

2.10. GROUNDS, P. 10

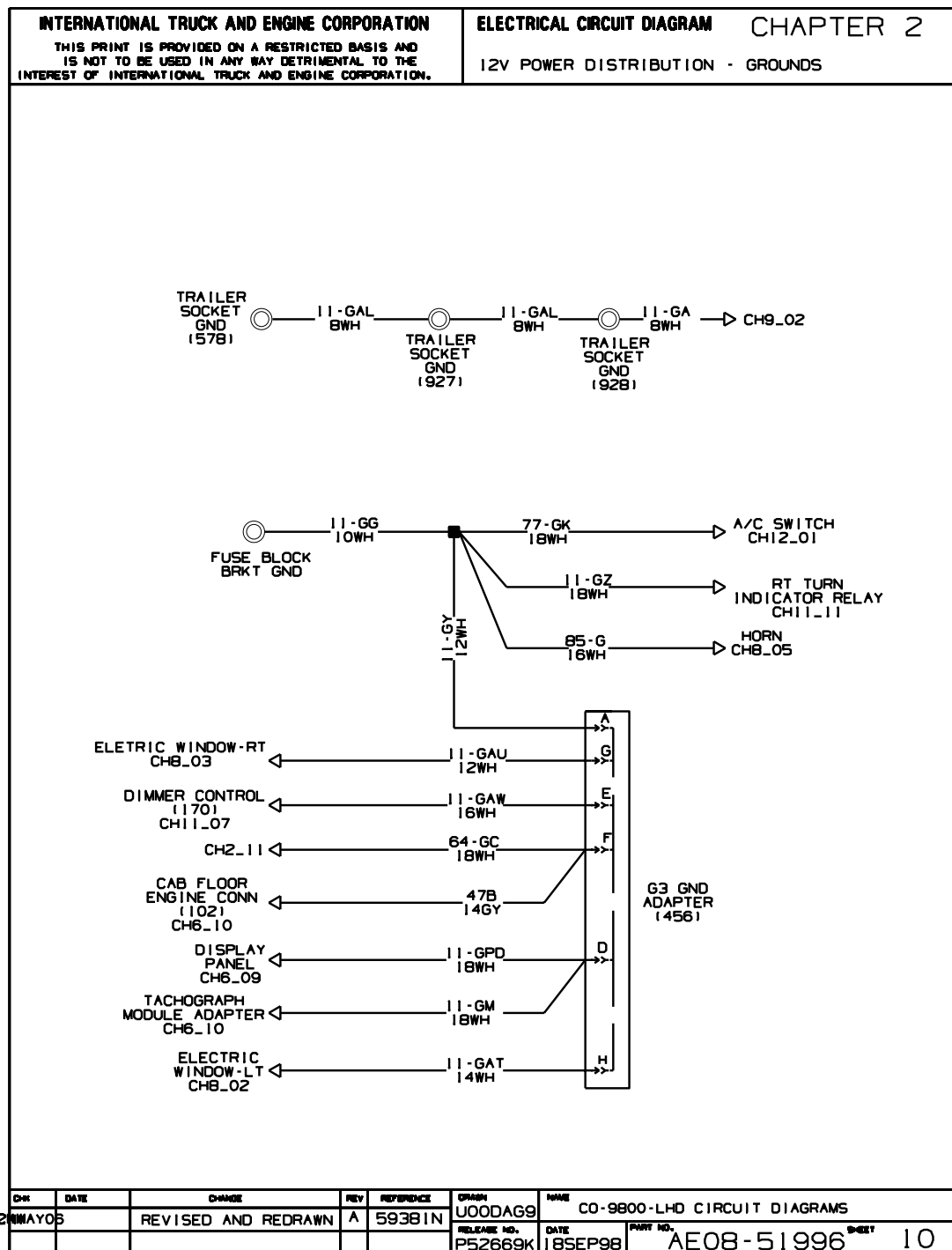


Figure 28 Grounds

2.11. GROUNDS, P. 11

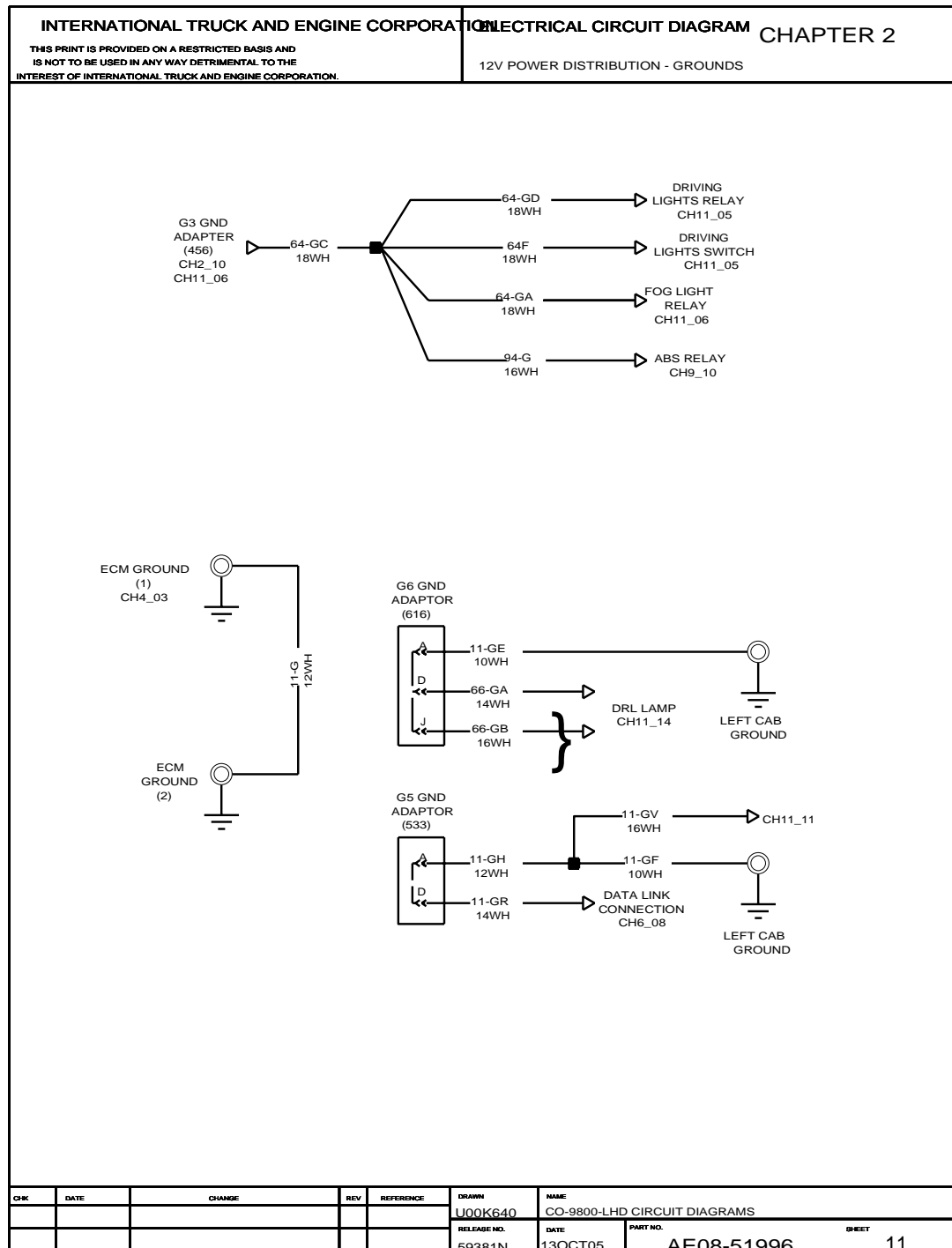


Figure 29 Grounds

2.12. IGNITION, P. 12

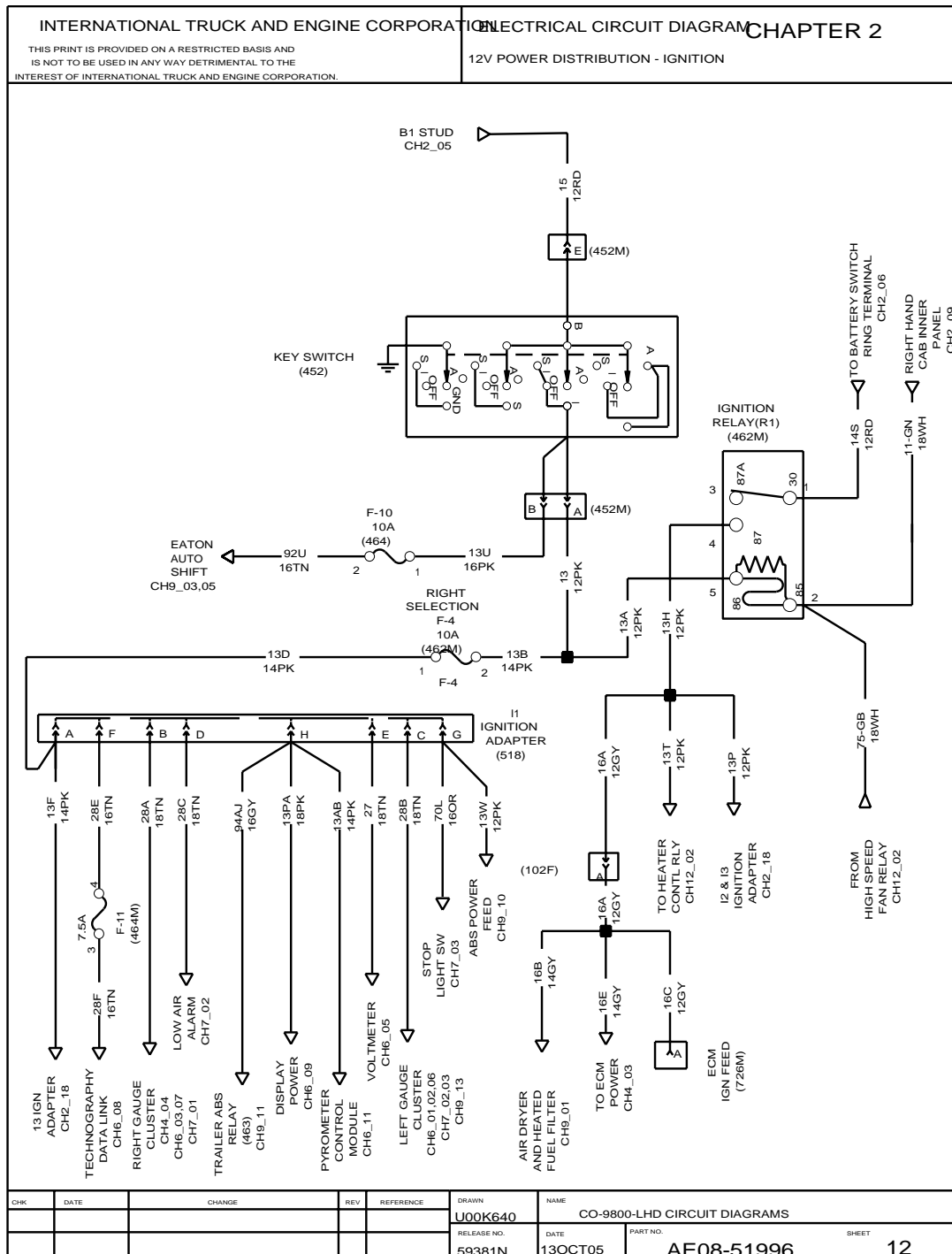


Figure 30 Ignition

Figure 31 Accessory Feed



2.14. PANEL LIGHT FEED ADAPTER, P. 14

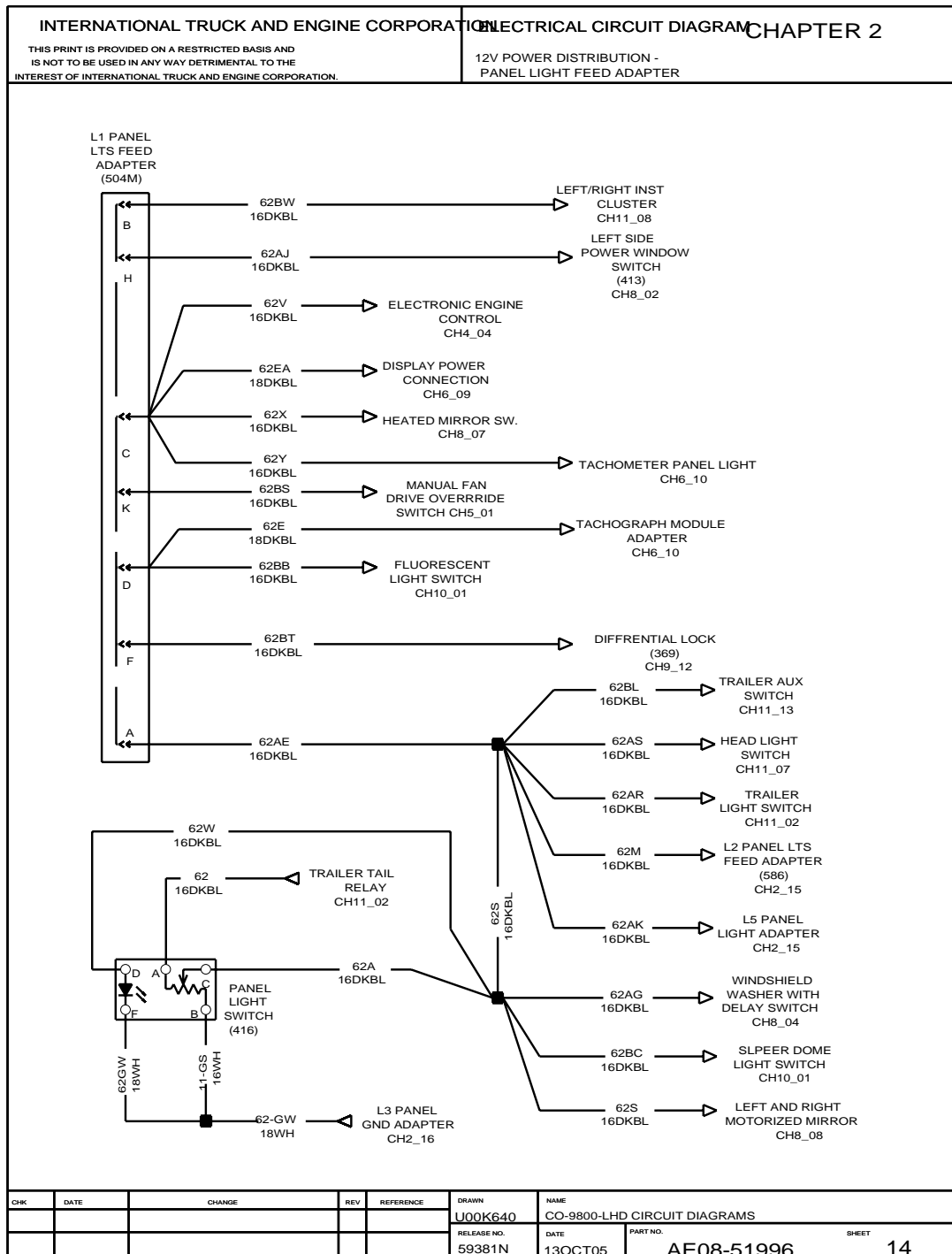


Figure 32 Panel Light Feed Adapter

2.15. PANEL LIGHT FEED ADAPTER, P. 15

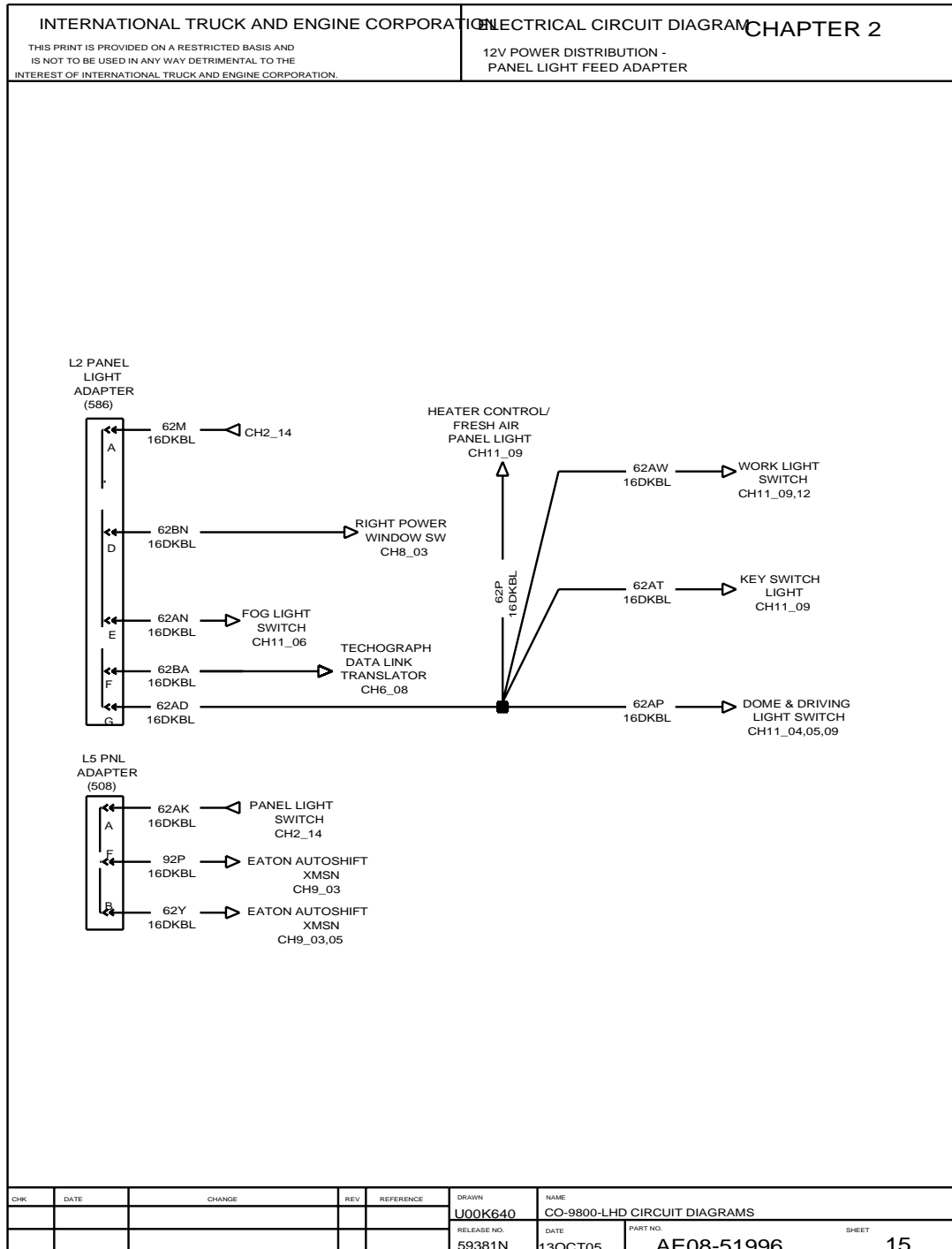


Figure 33 Panel Light Feed Adapter

2.16. PANEL LIGHT GROUND ADAPTER, P. 16

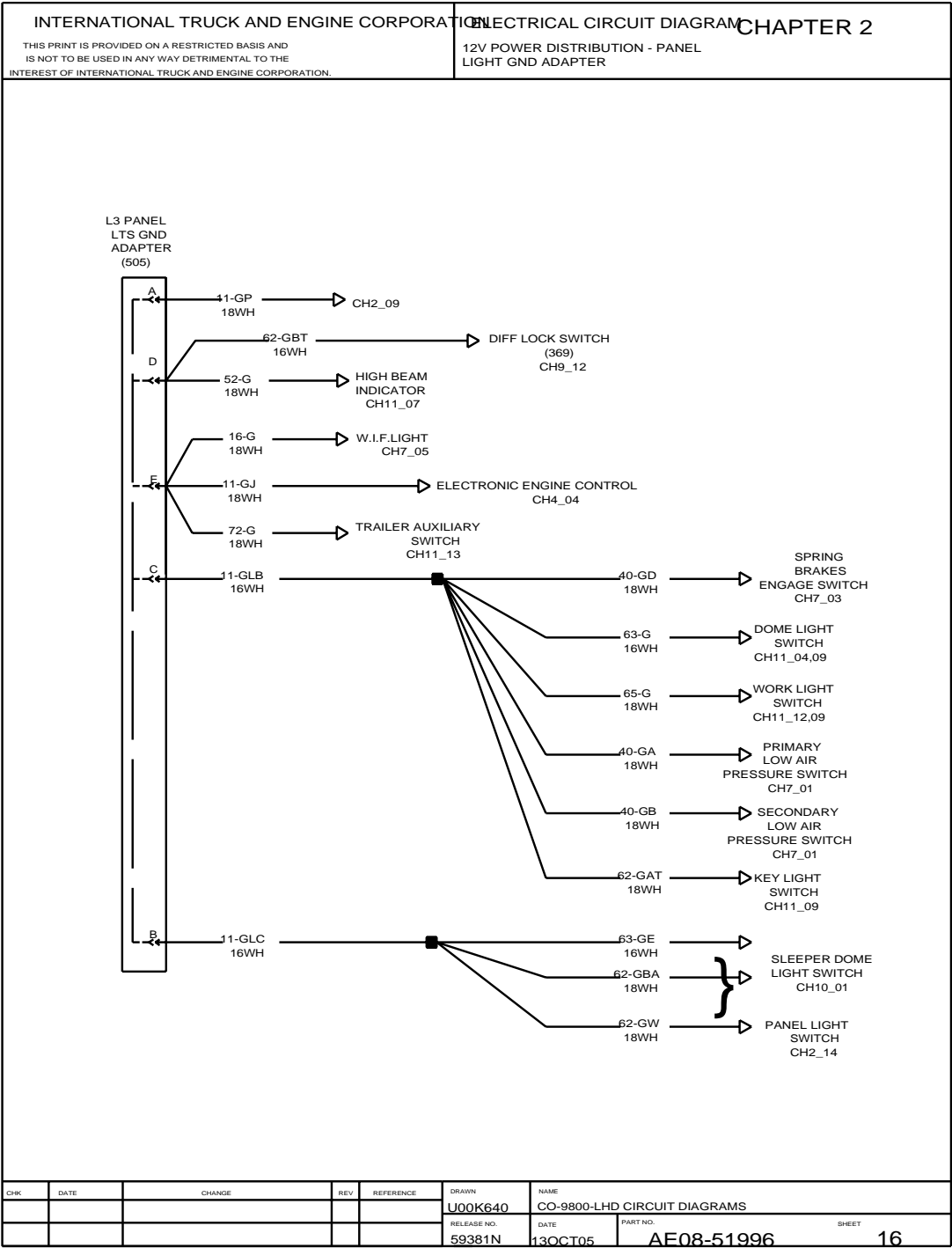


Figure 34 Panel Light Ground Adapter

2.17. POWER SOURCE SOCKET, P. 17

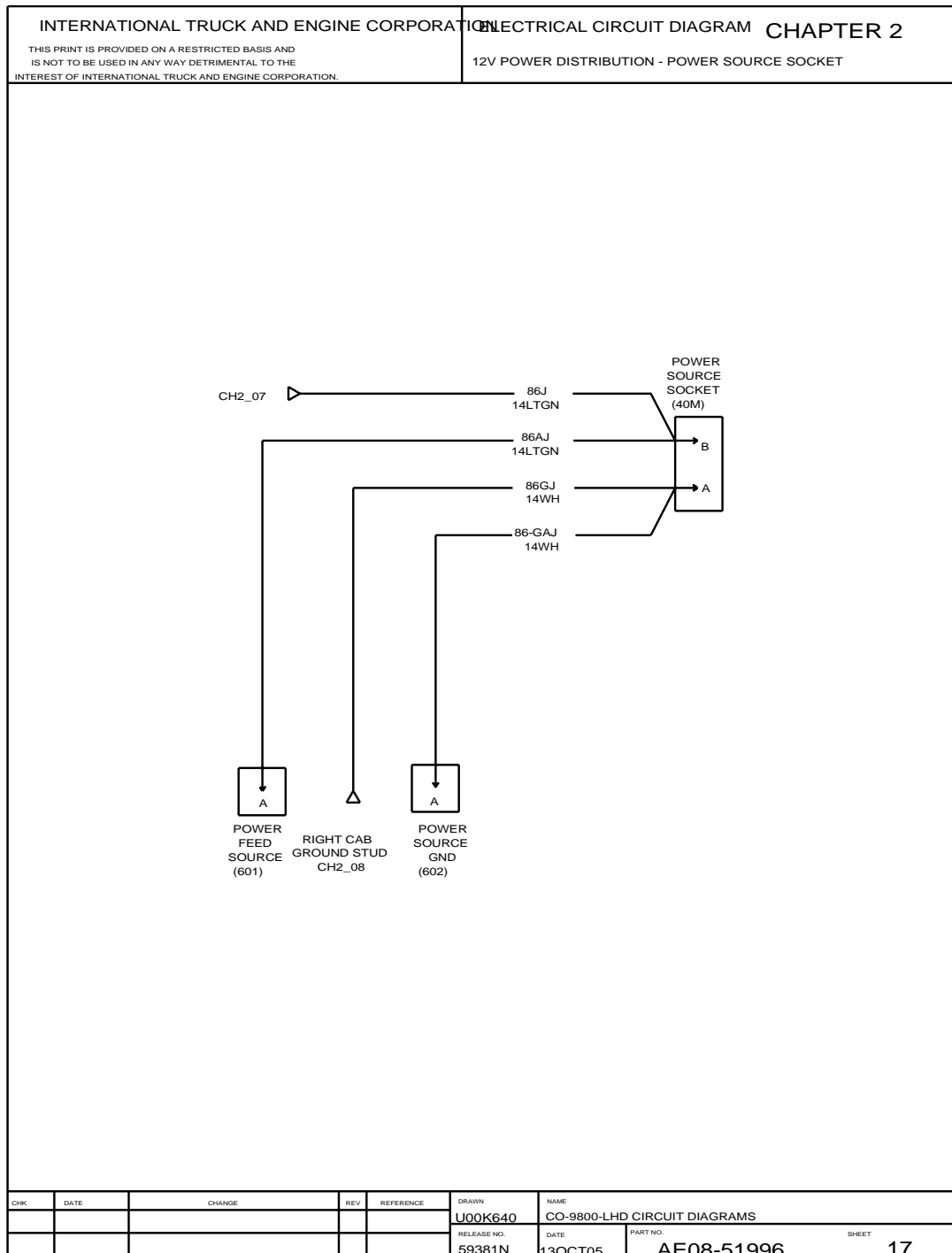


Figure 35 Power Source Socket

2.18. IGNITION FEED, P. 18

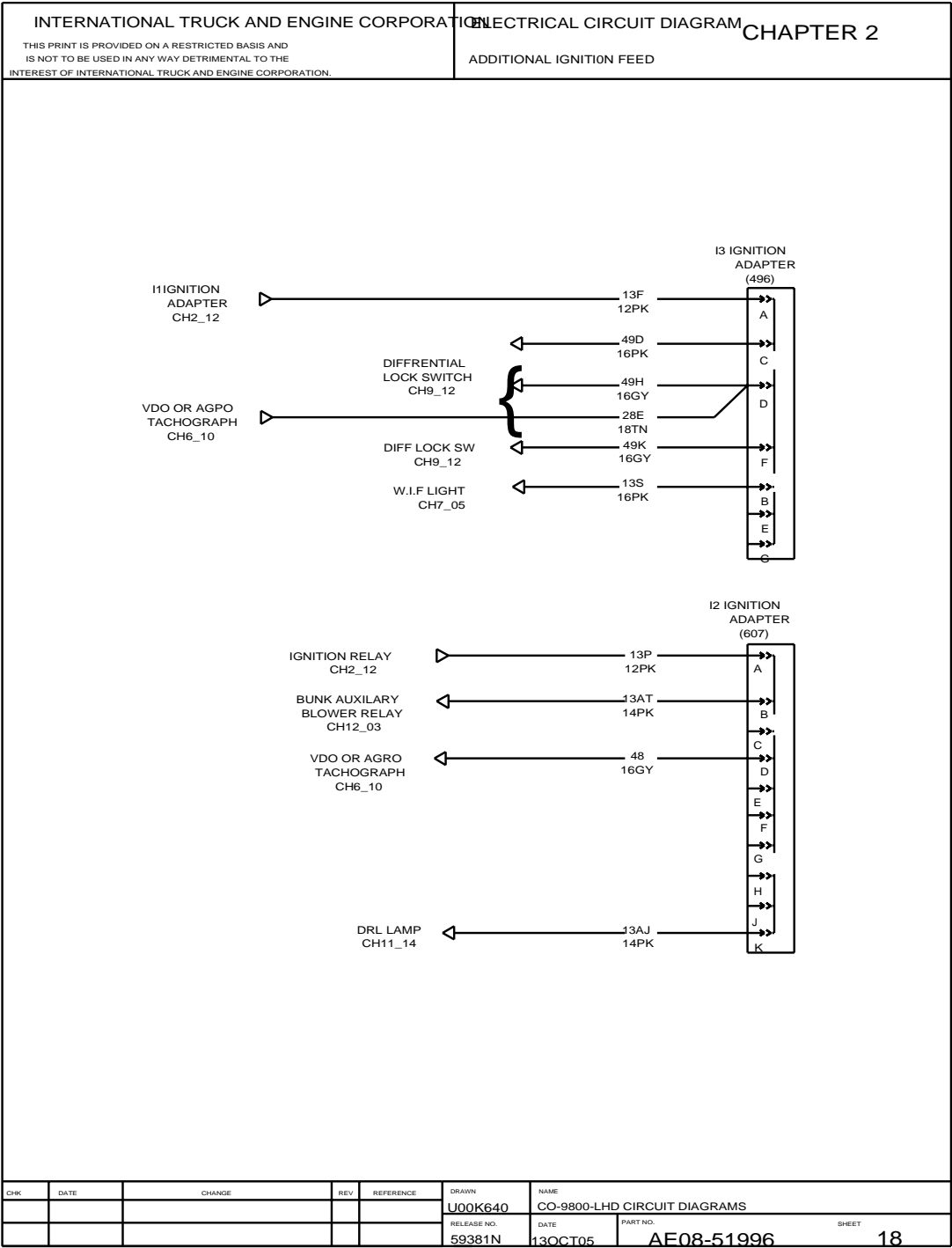


Figure 36 Ignition Feed

2.19. J1939 DATALINK, P. 19

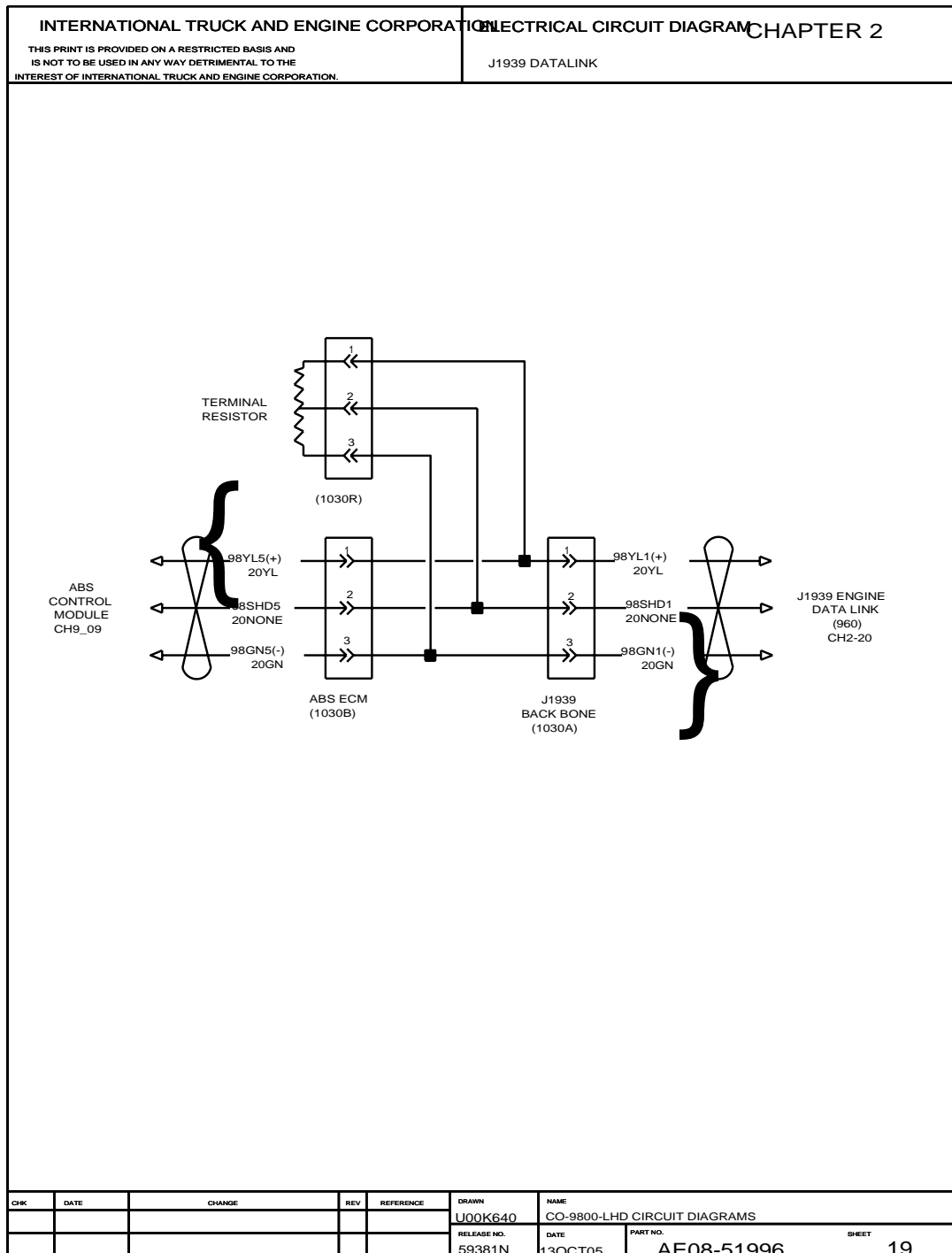


Figure 37 J1939 Datalink

2.20. J1939 DATALINK, P. 20

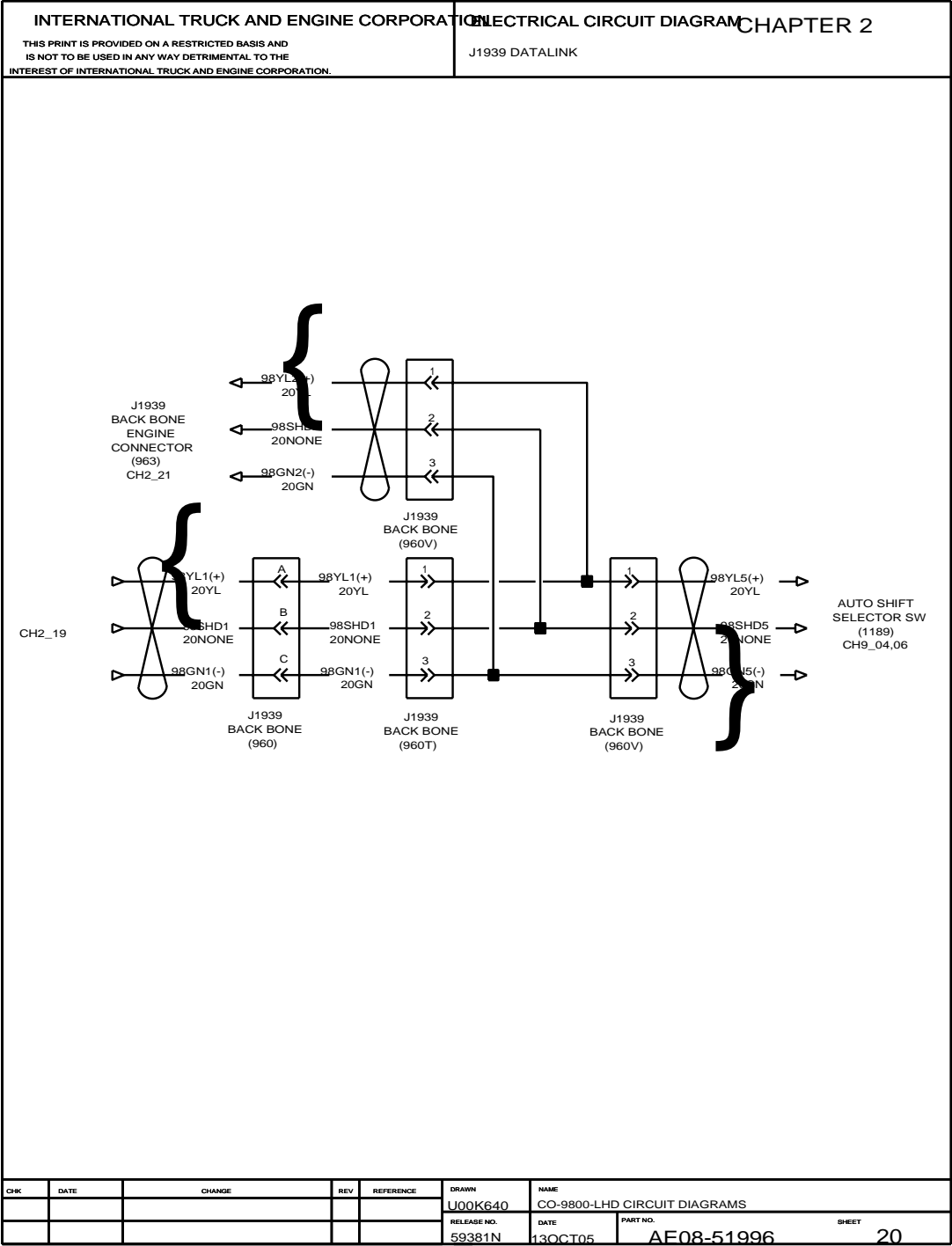


Figure 38 J1939 Datalink

2.21. J1939 DATALINK, P. 21

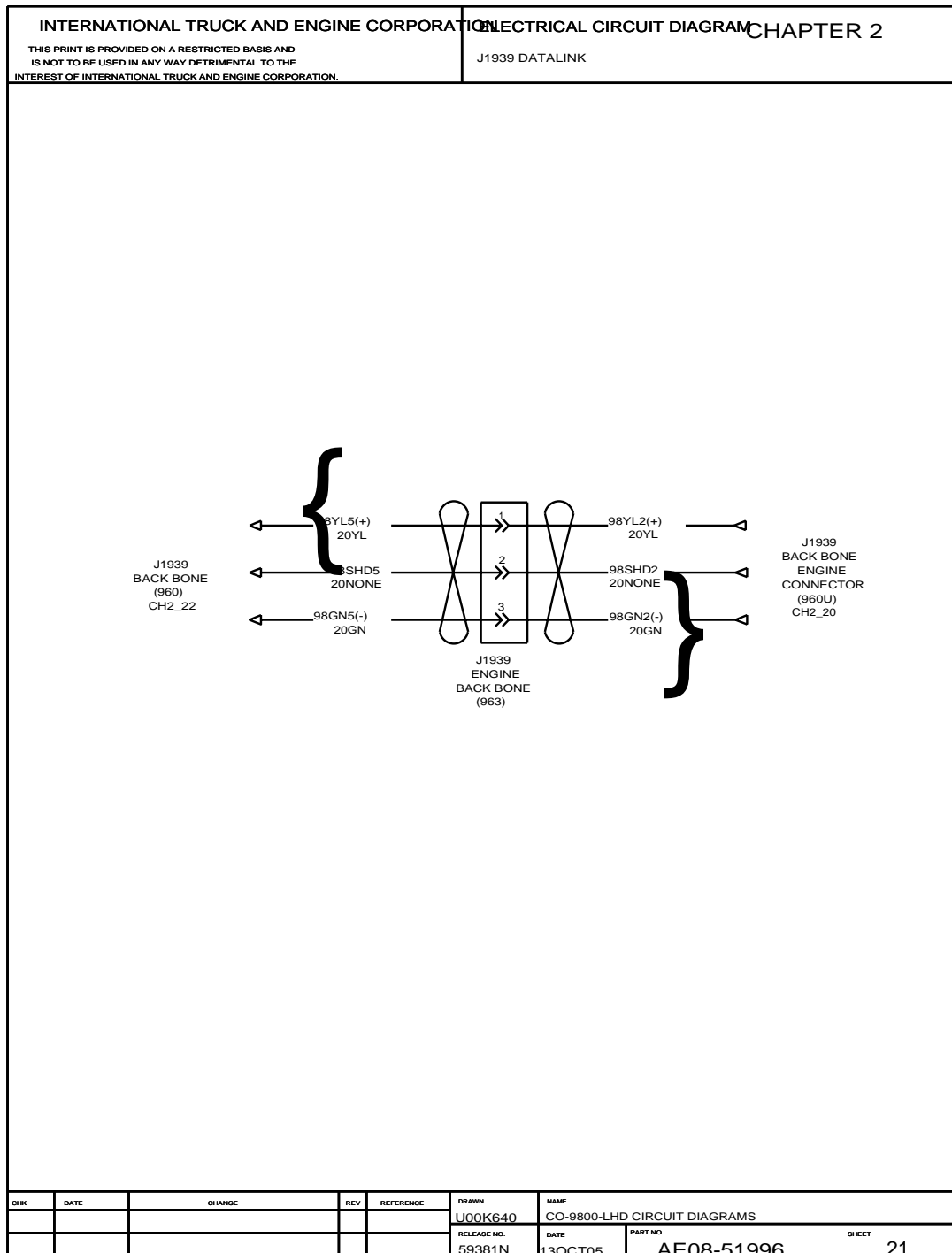


Figure 39 J1939 Datalink

2.22. J1939 DATALINK, P. 22

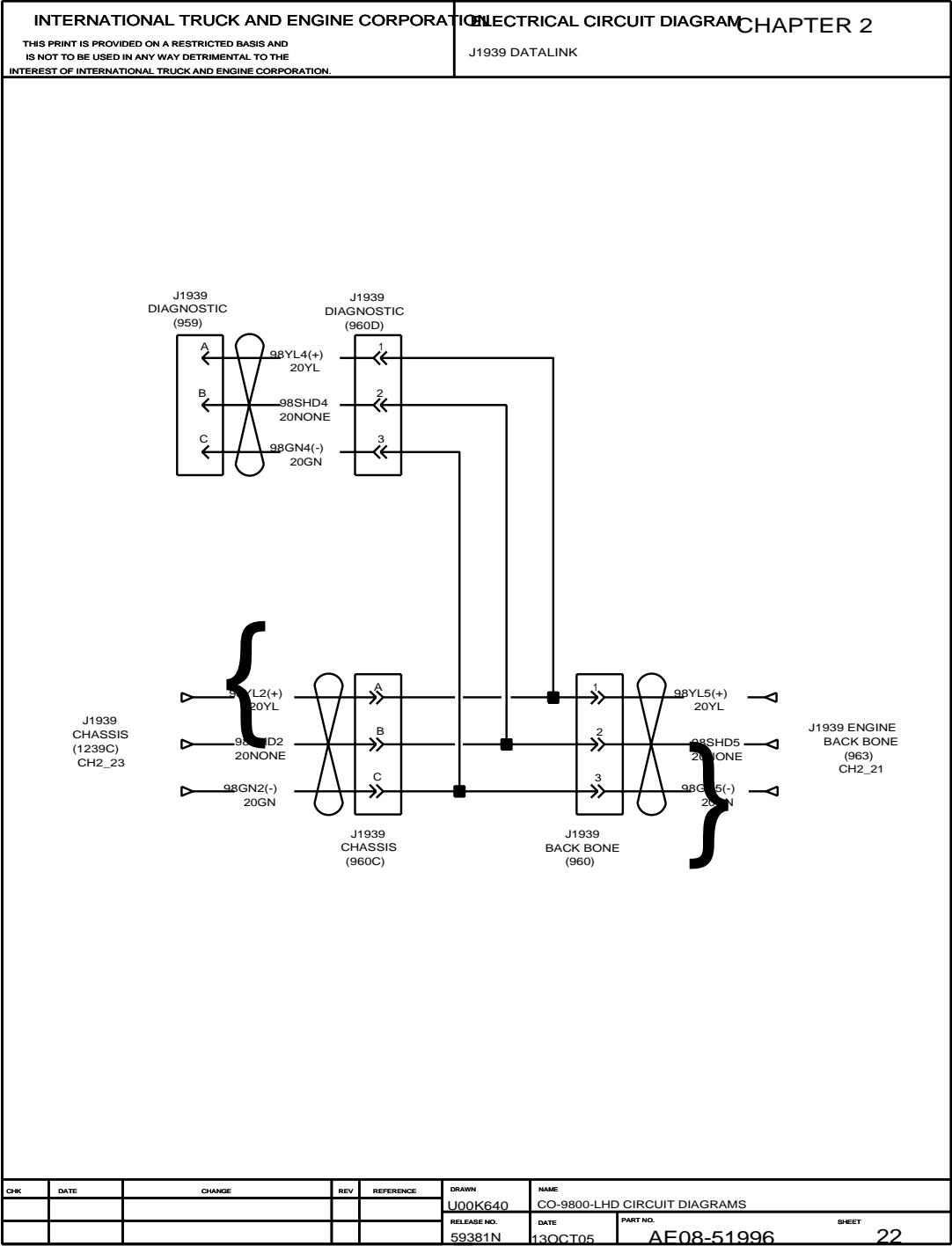


Figure 40 J1939 Datalink

Figure 41 J1939 Datalink



3.1. WITH CUMMINS N14 ENGINE, P. 1

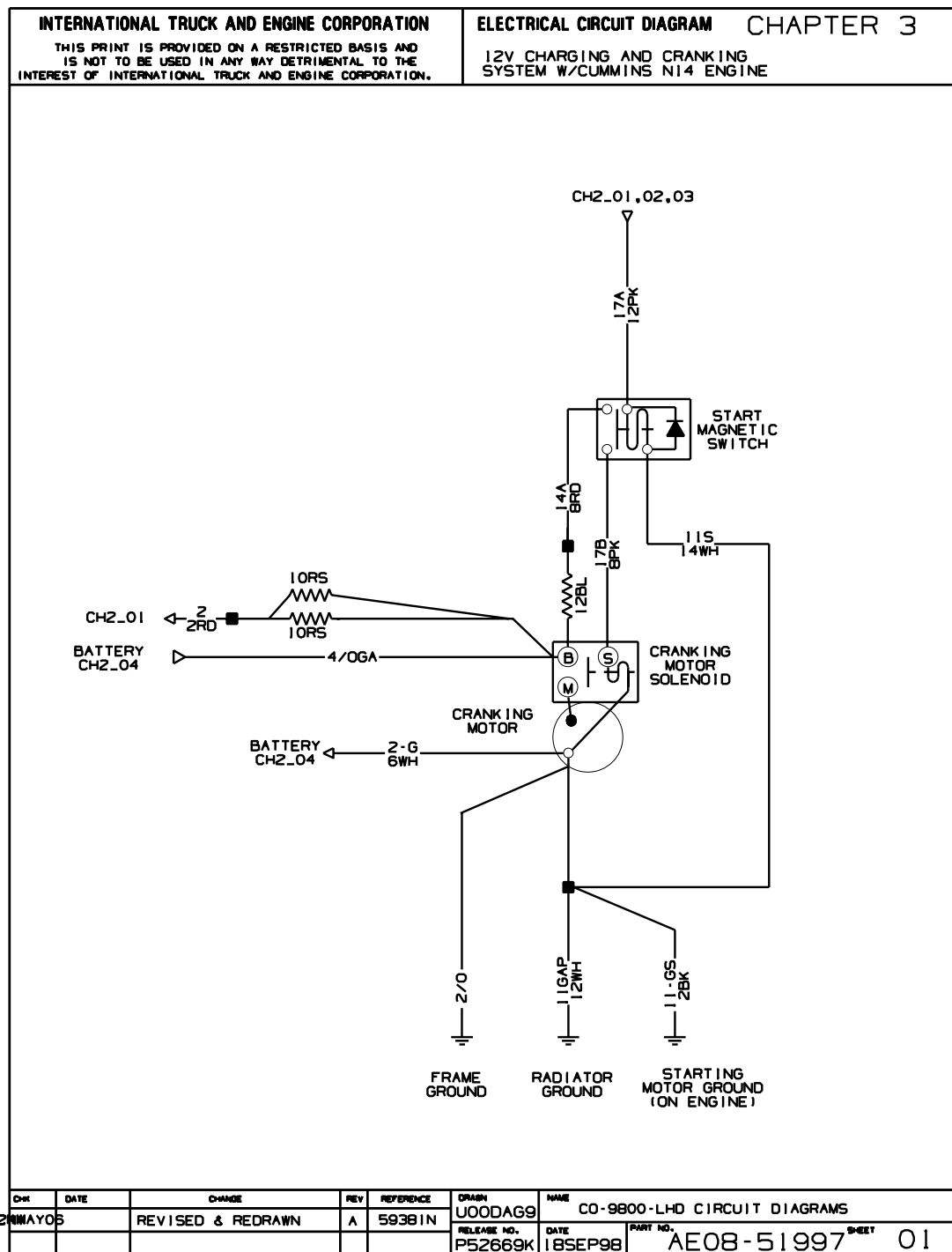


Figure 42 With Cummins N14 Engine

3.2. WITH CUMMINS N14 ENGINE WITH THERMAL OC, P. 2

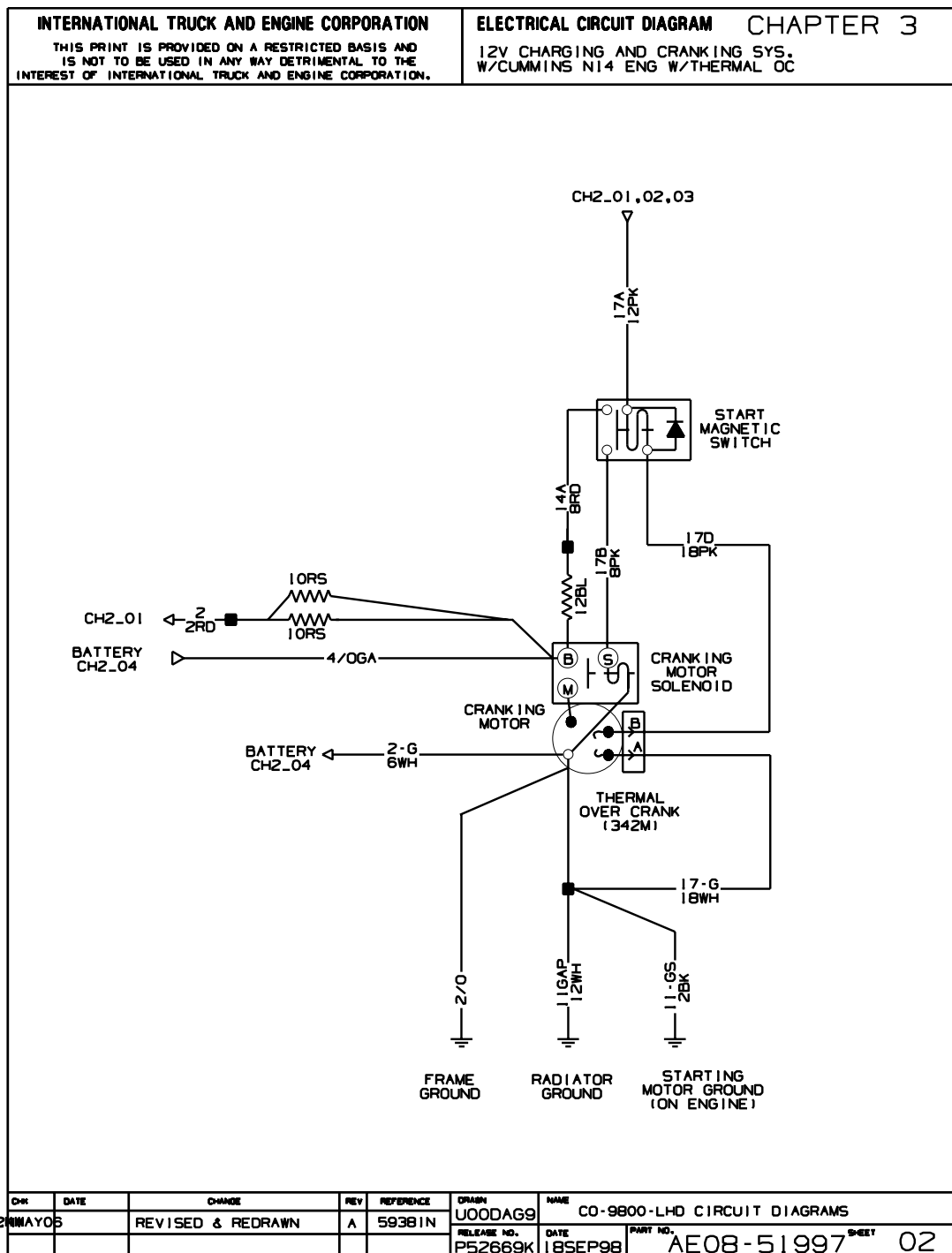


Figure 43 With Cummins N14 Engine with Thermal OC

3.3. WITH DETROIT DIESEL SERIES 60, P. 3

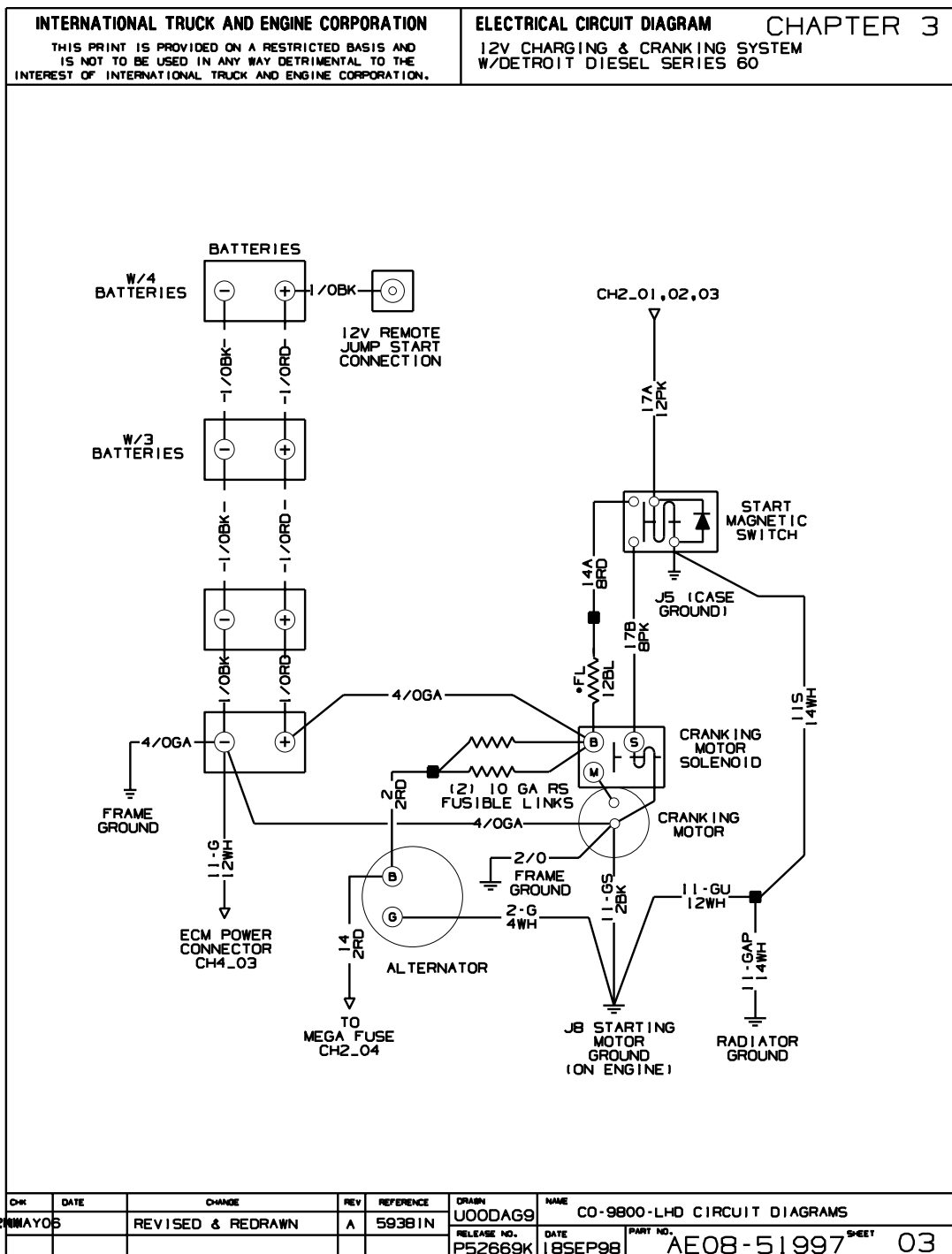


Figure 44 With Detroit Diesel Series 60

3.4. WITH THERMAL OC PROTECTION, P. 4

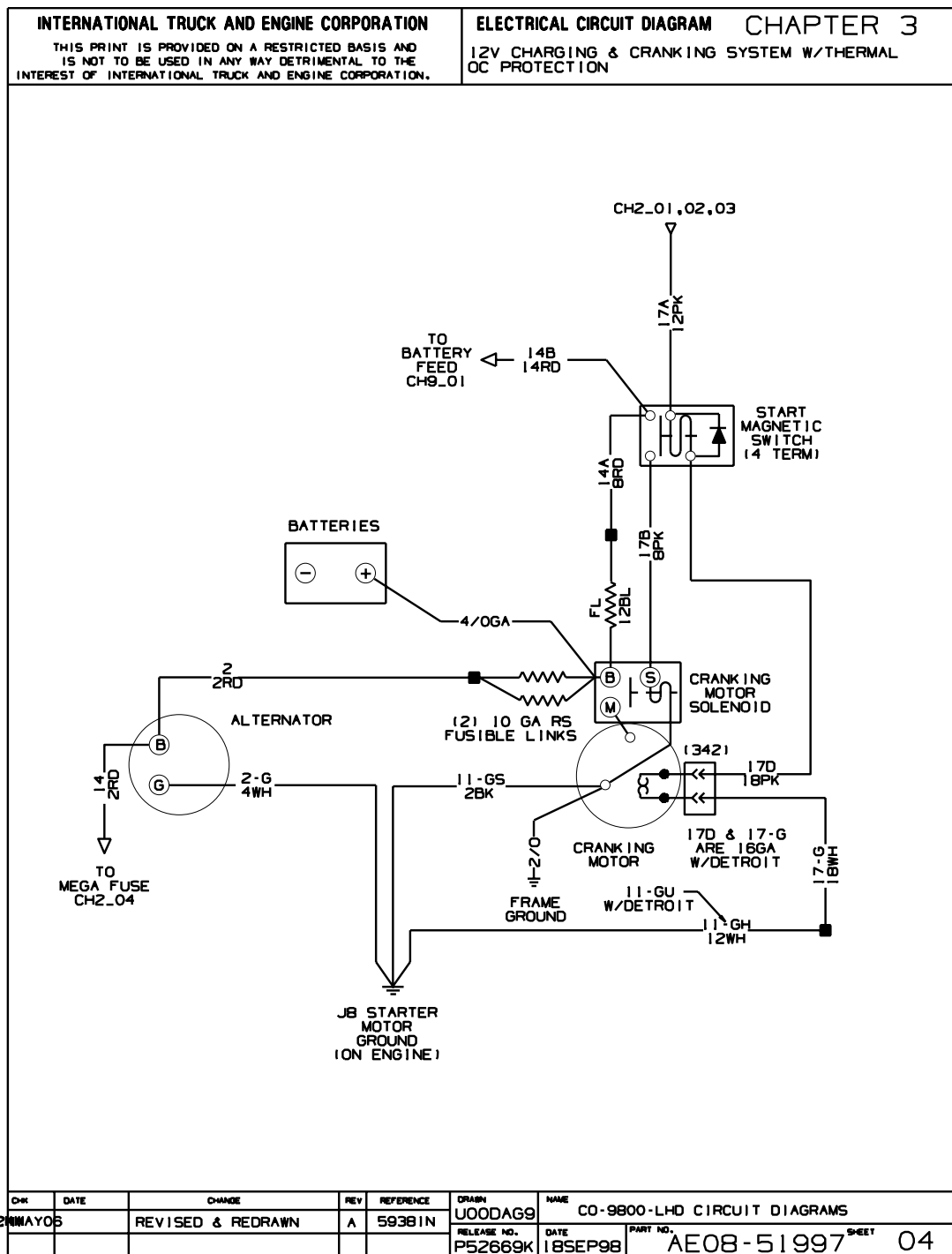


Figure 45 With Thermal OC Protection

4. ENGINES (LHD — CHAPTER 4)

4.1. CUMMINS ISX ELECTRONIC ENGINE CONTROL, P. 1

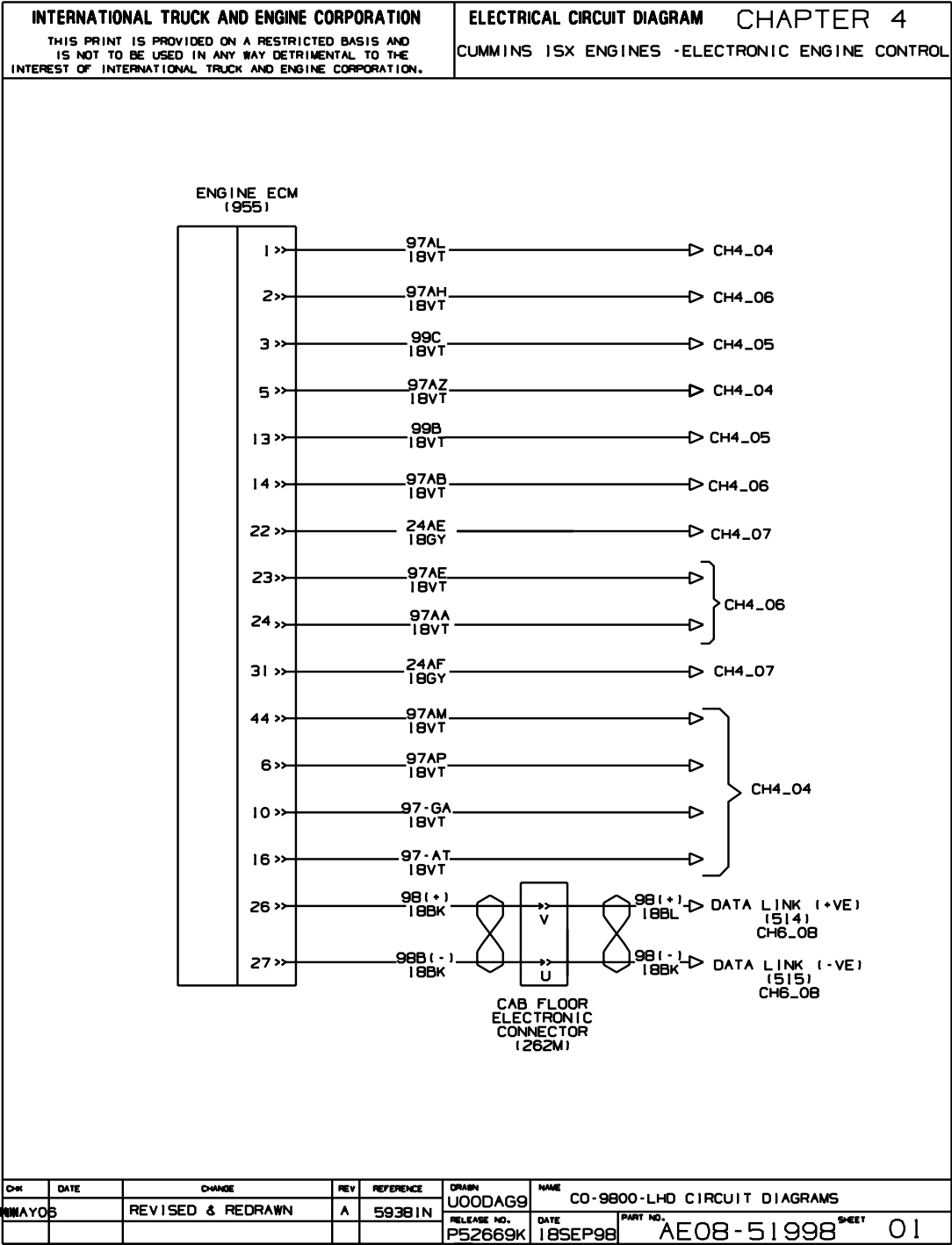


Figure 46 Cummins ISX Electronic Engine Control

4.2. CUMMINS ISM ELECTRONIC ENGINE CONTROL, P. 2

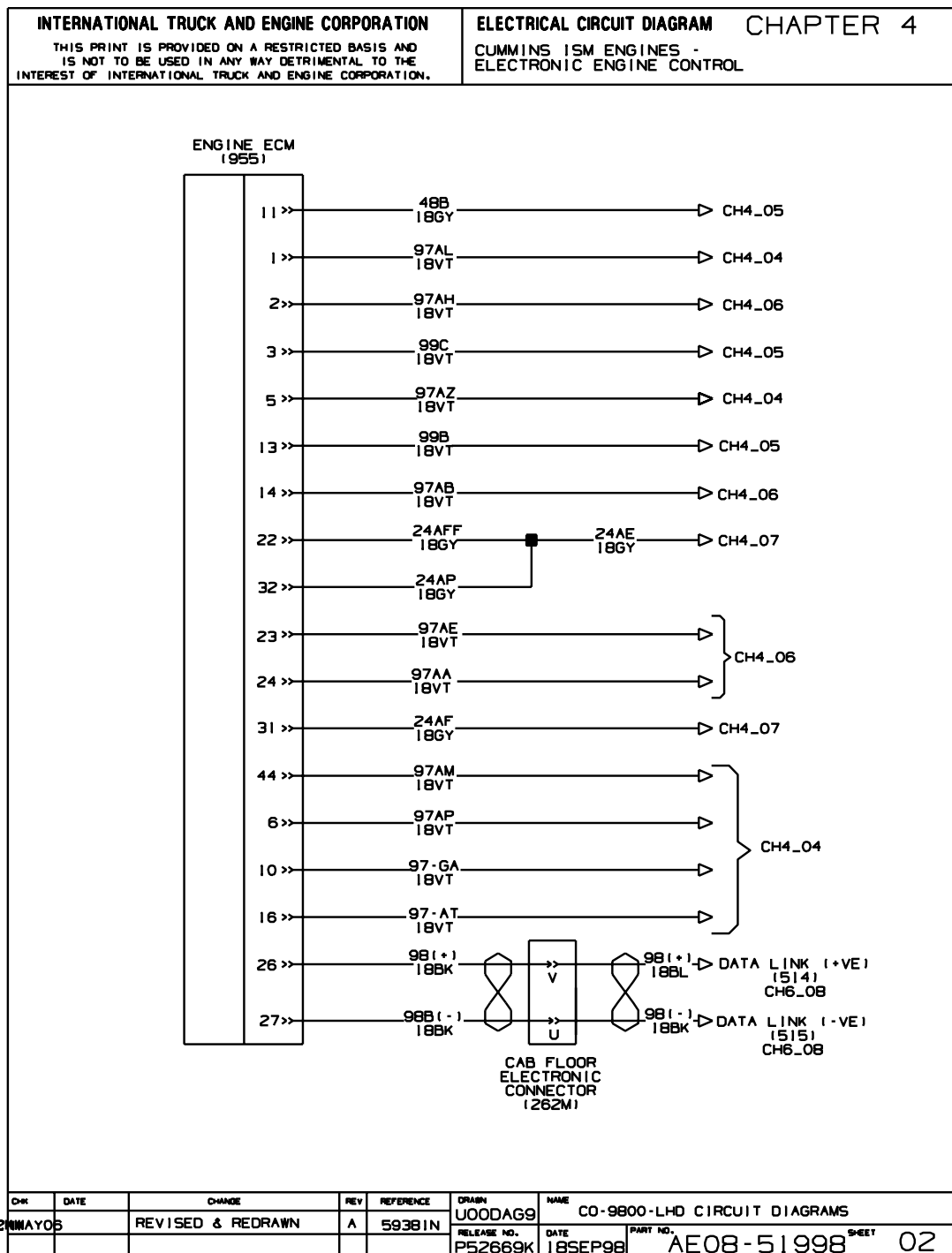


Figure 47 Cummins ISM Electronic Engine Control

4.3. CUMMINS ISM, ISX ELECTRONIC ENGINE CONTROL, P. 3

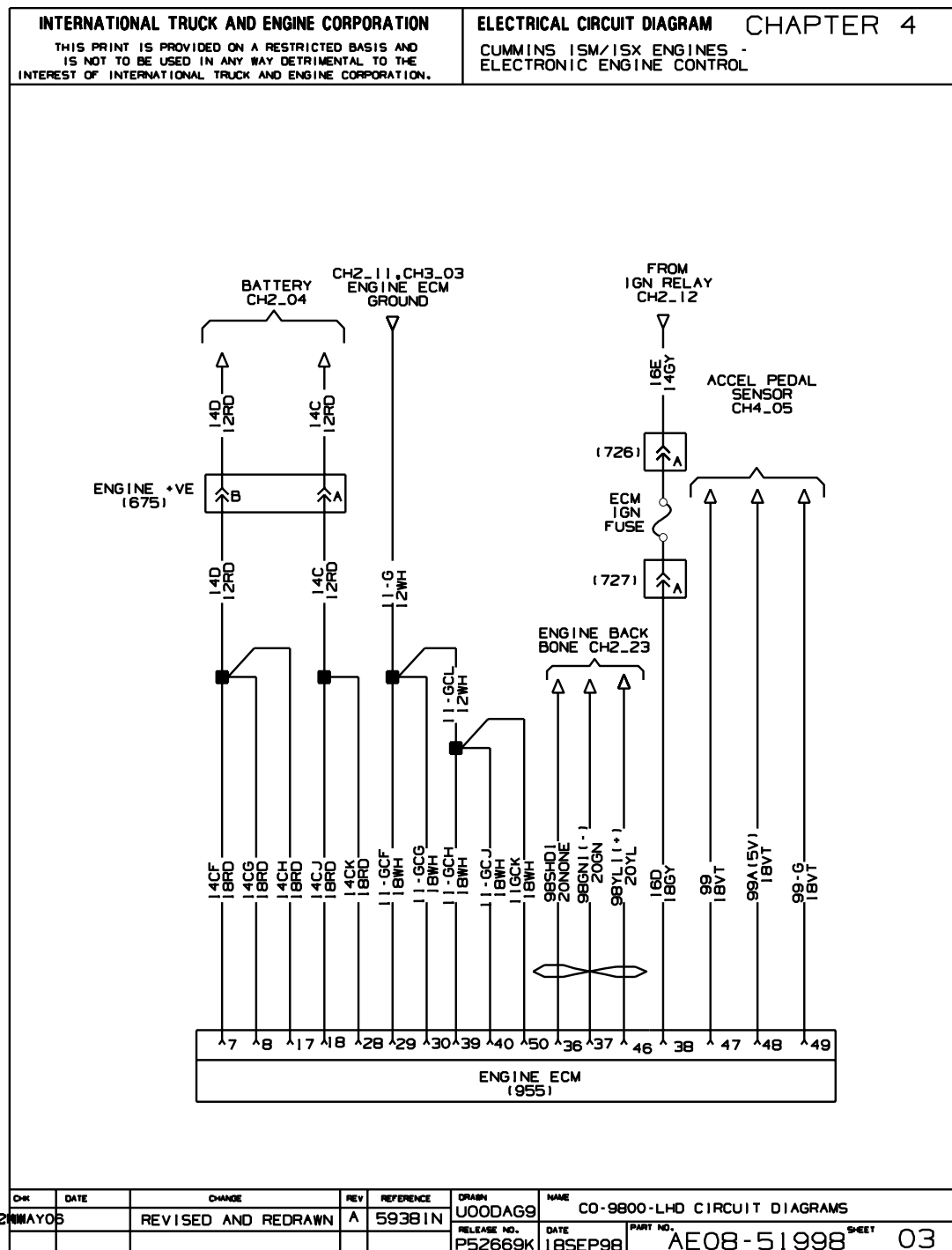


Figure 48 Cummins ISM, ISX Electronic Engine Control

4.4. CUMMINS ISM, ISX — ELECTRONIC ENGINE CONTROLS, P. 4

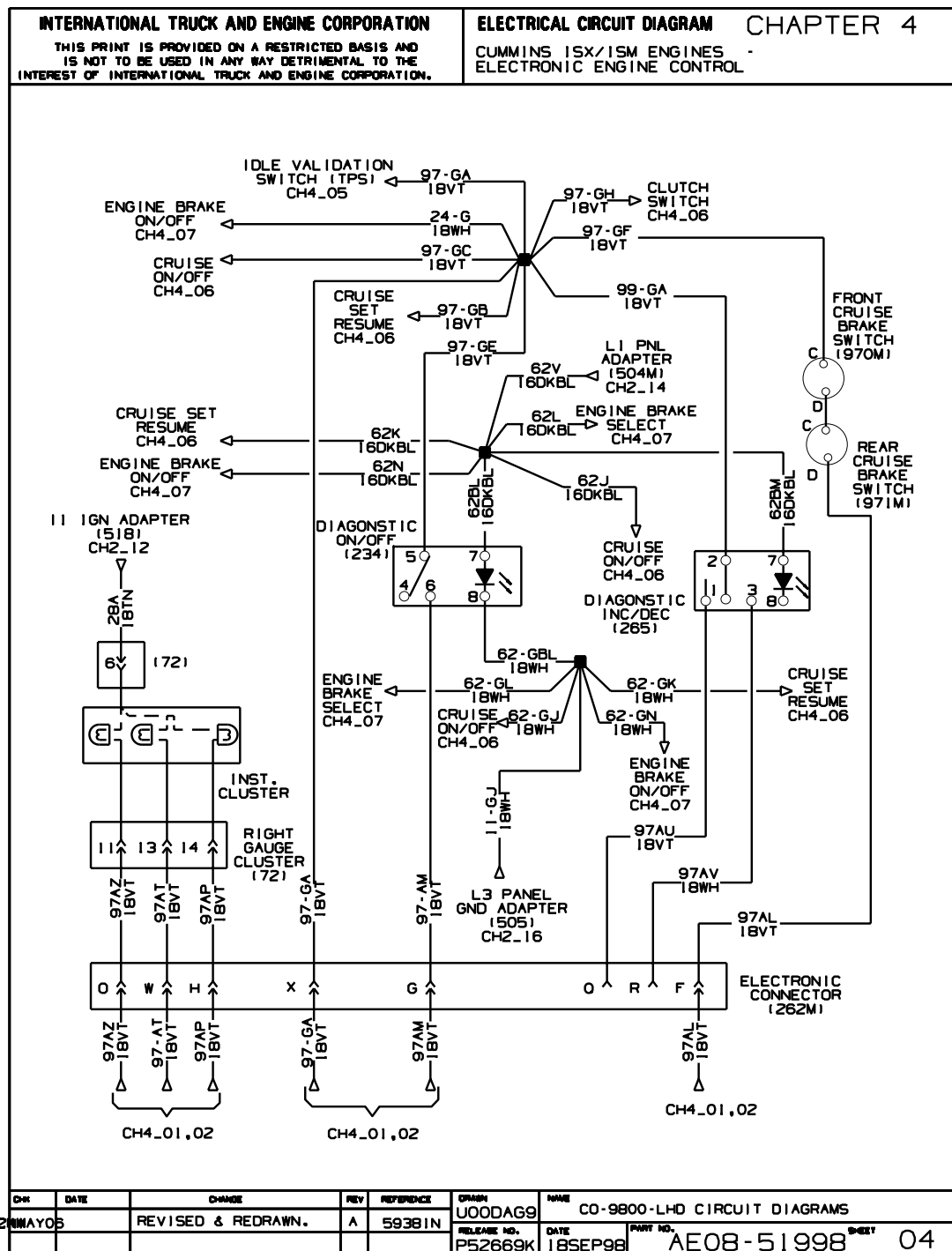


Figure 49 Cummins ISM, ISX – Electronic Engine Controls

4.5. CUMMINS ISM, ISX — ELECTRONIC ENGINE CONTROLS, P. 5

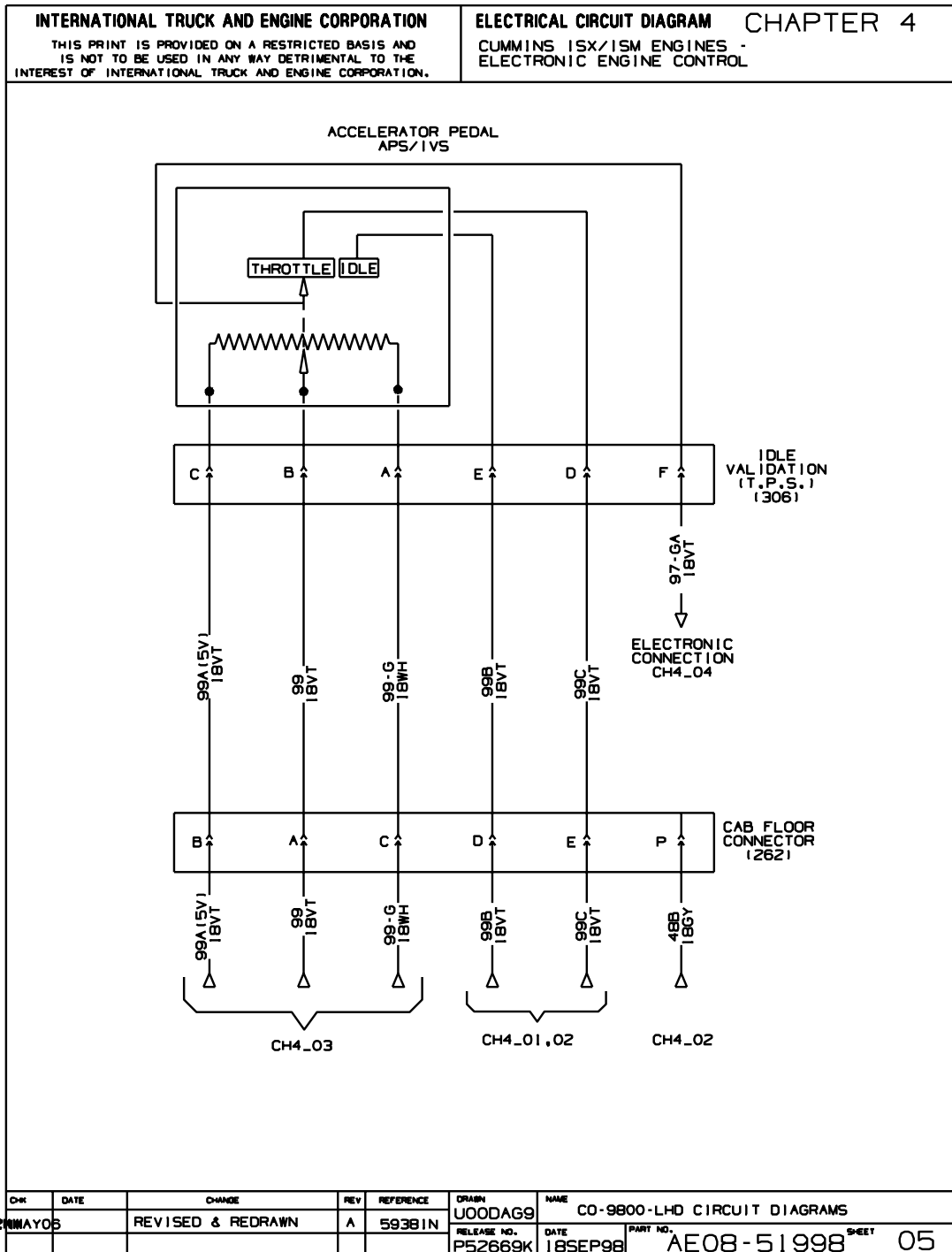


Figure 50 Cummins ISM, ISX – Electronic Engine Controls

4.6. CUMMINS ISX/ISM – CRUISE CONTROL, P. 6

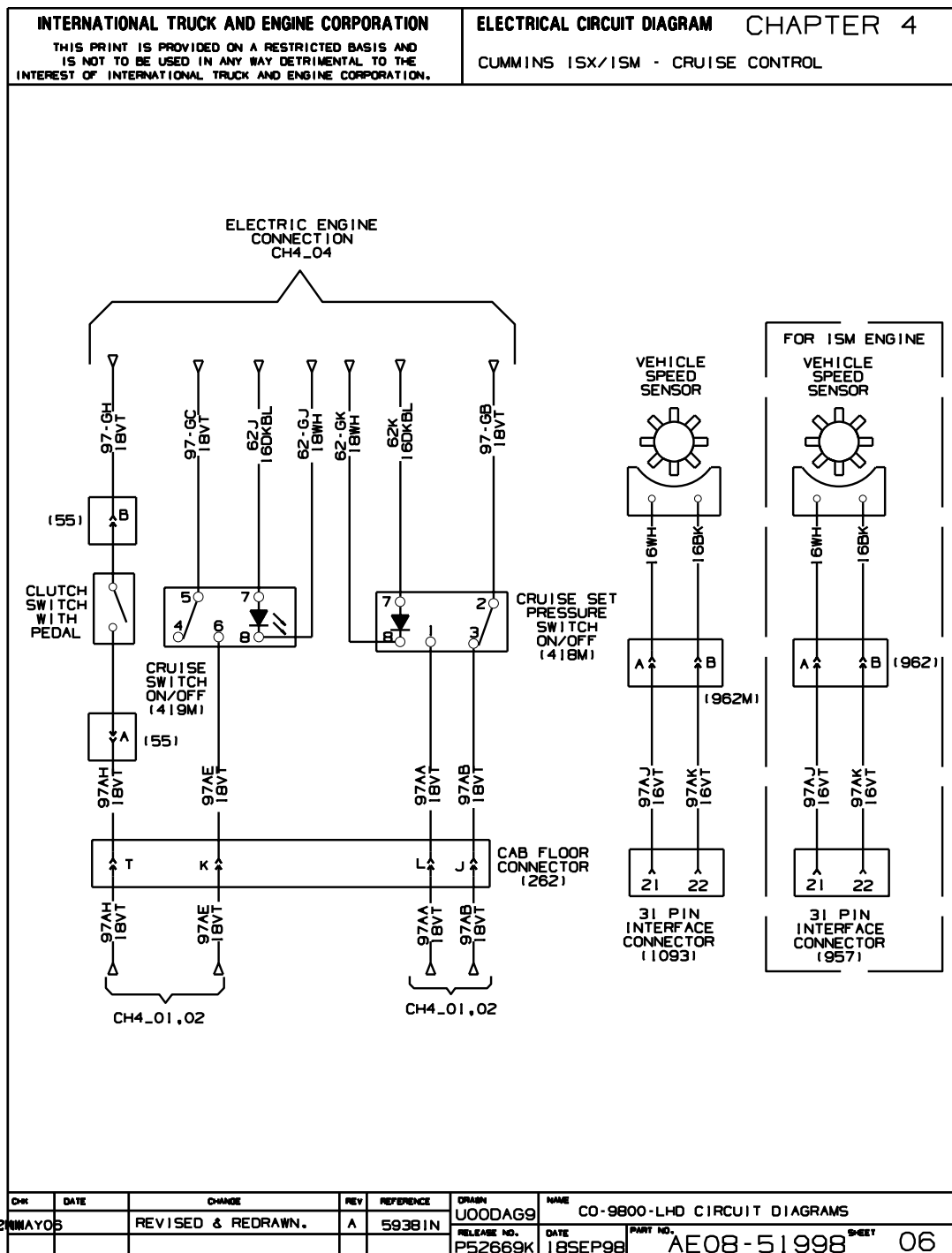


Figure 51 Cummins ISX/ISM – Cruise Control

4.7. CUMMINS ISX/ISM – ENGINE BRAKES, P. 7

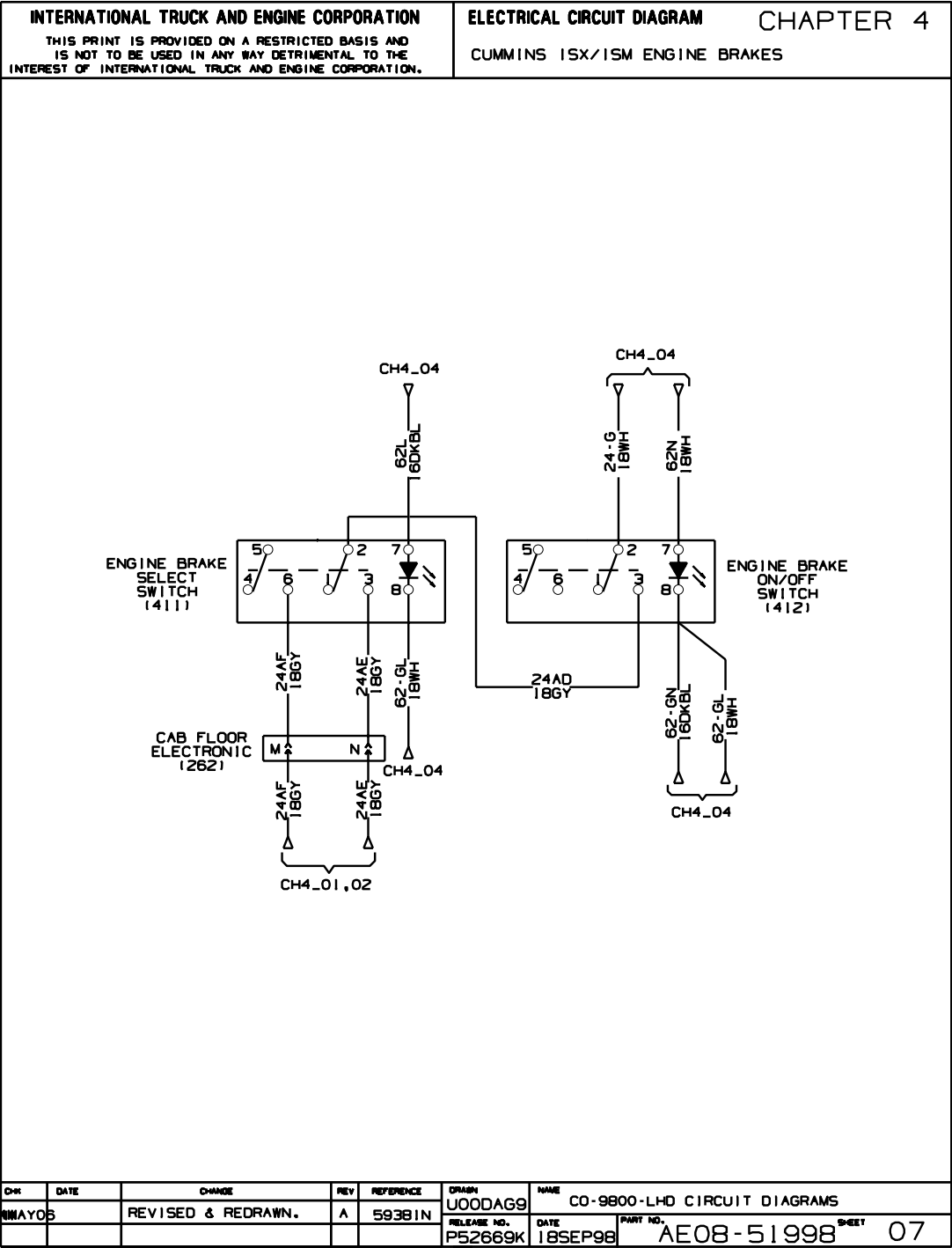


Figure 52 Cummins ISX/ISM – Engine Brakes

5. FANS (LHD — CHAPTER 5)

5.1. HORTON AND KYSOR ENGINE FAN WITH CUMMINS ISX WITH OVERRIDE SWITCH, P. 1

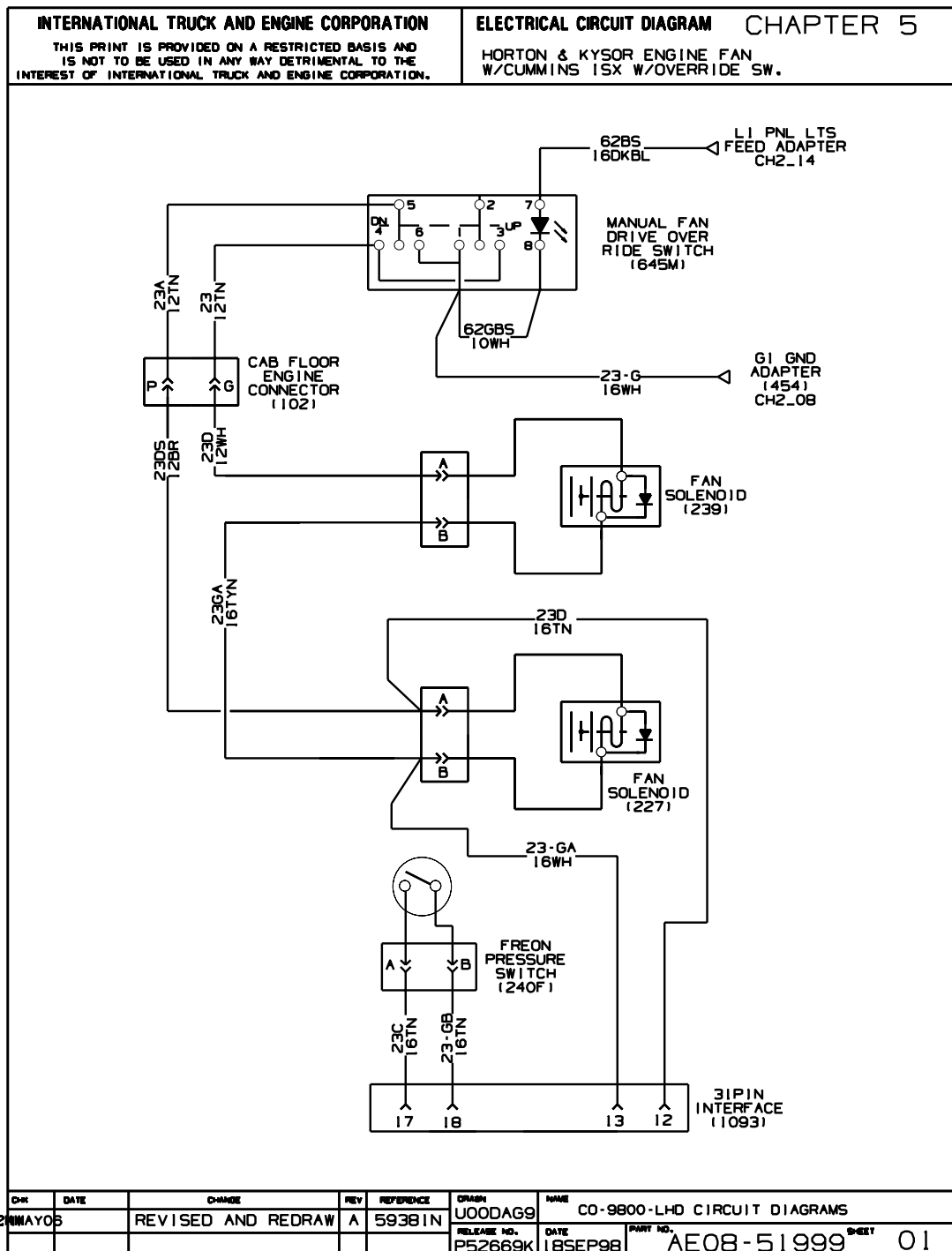


Figure 53 Horton and Kysor Engine Fan With Cummins ISX With Override Switch

5.2. REMOTE CONTROL FAN SOL, P. 2

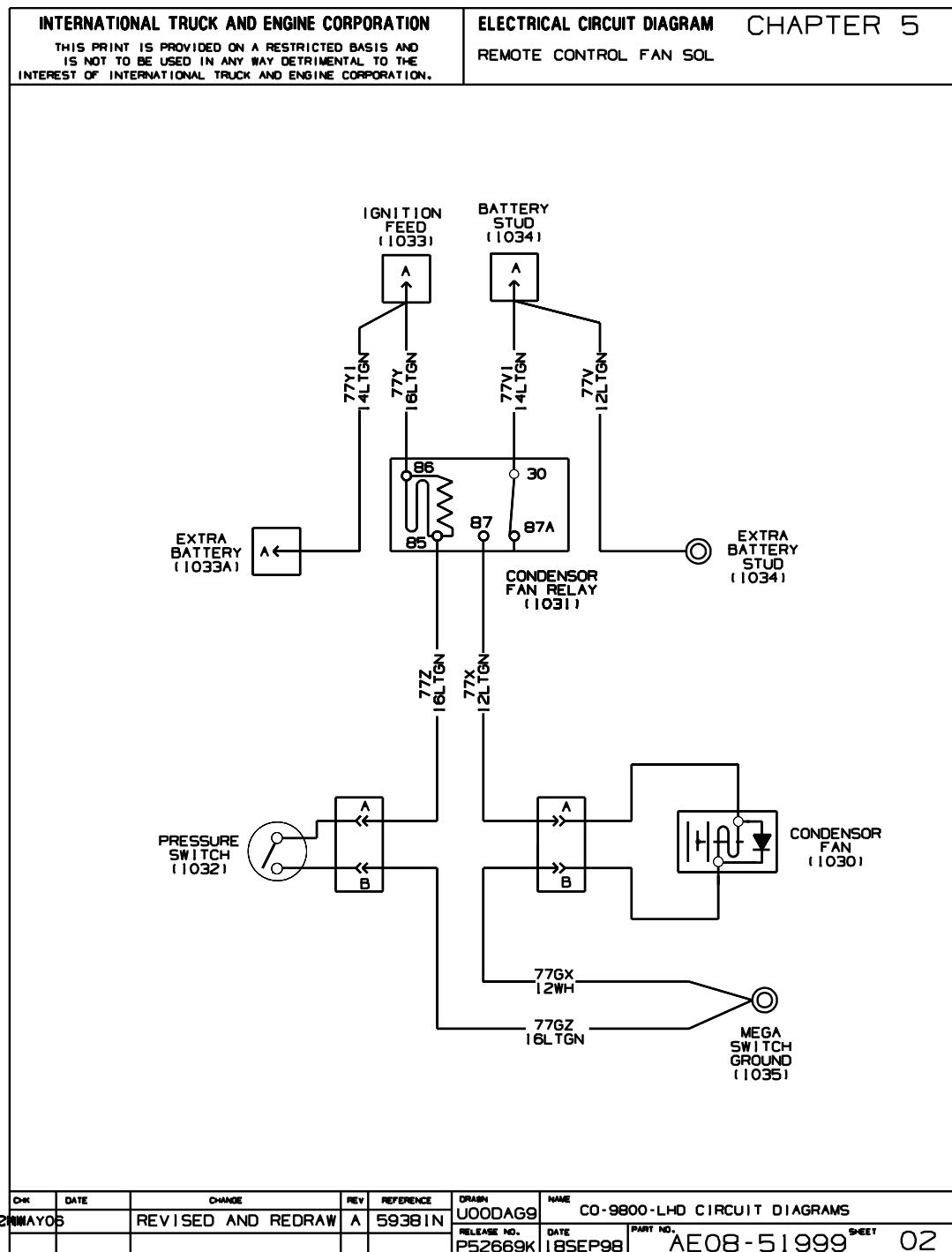


Figure 54 Remote Control Fan Sol

6. GAUGES AND SYSTEMS (LHD — CHAPTER 6)

6.1. ENGINE OIL TEMPERATURE GAUGE, P. 1

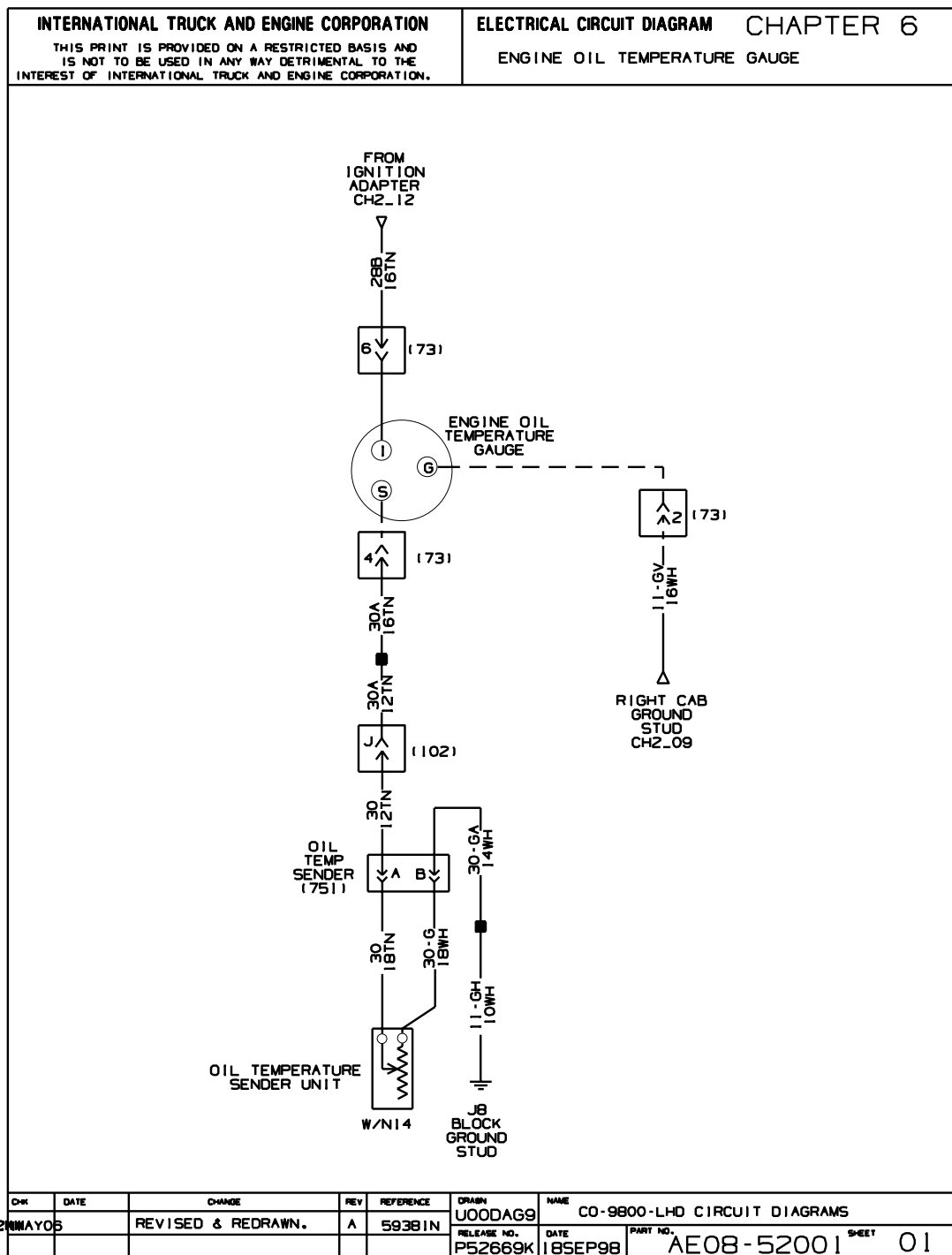


Figure 55 Engine Oil Temperature Gauge

6.2. ENGINE WATER TEMPERATURE GAUGE, P. 2

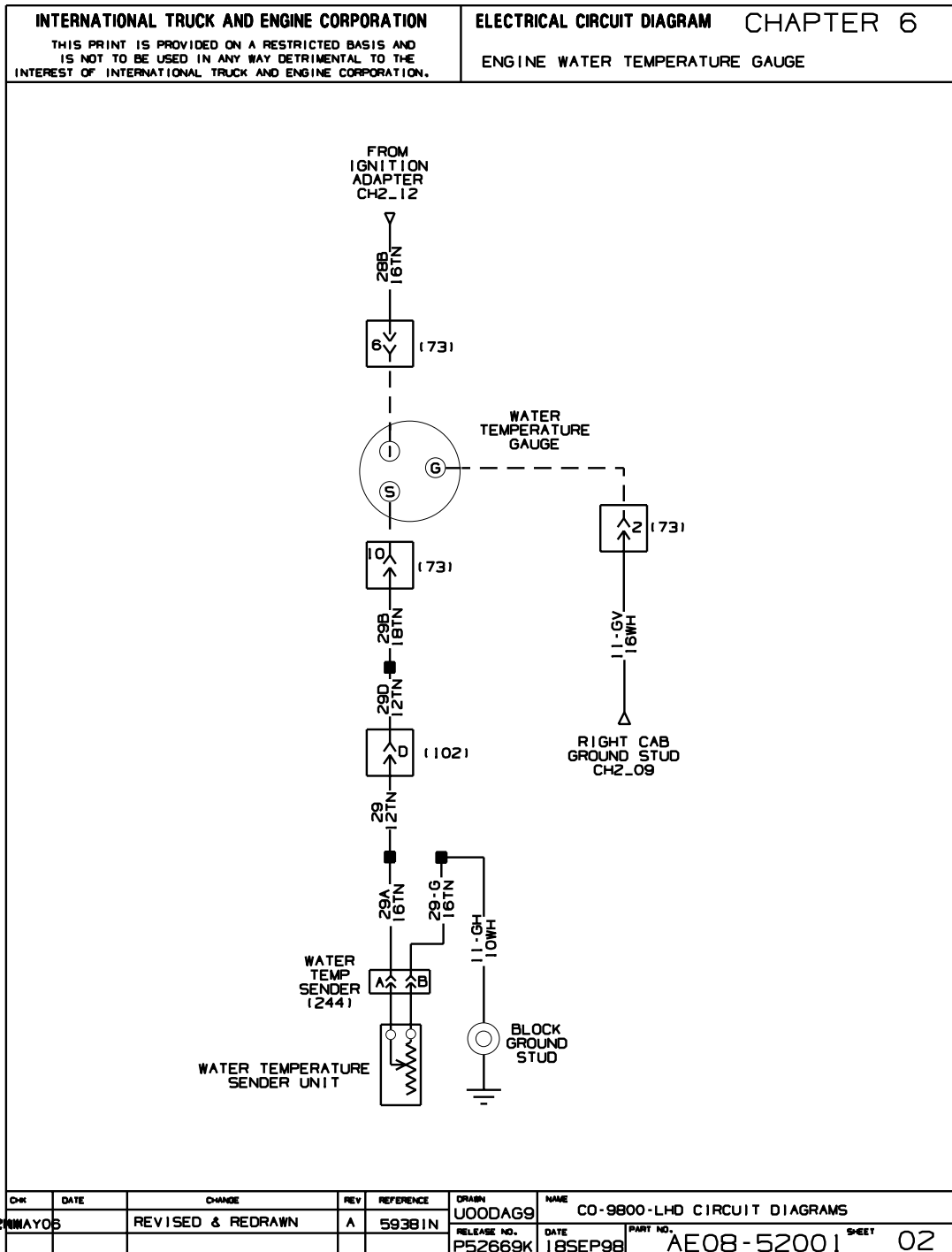


Figure 56 Engine Water Temperature Gauge

6.3. FUEL LEVEL GAUGE, P. 3

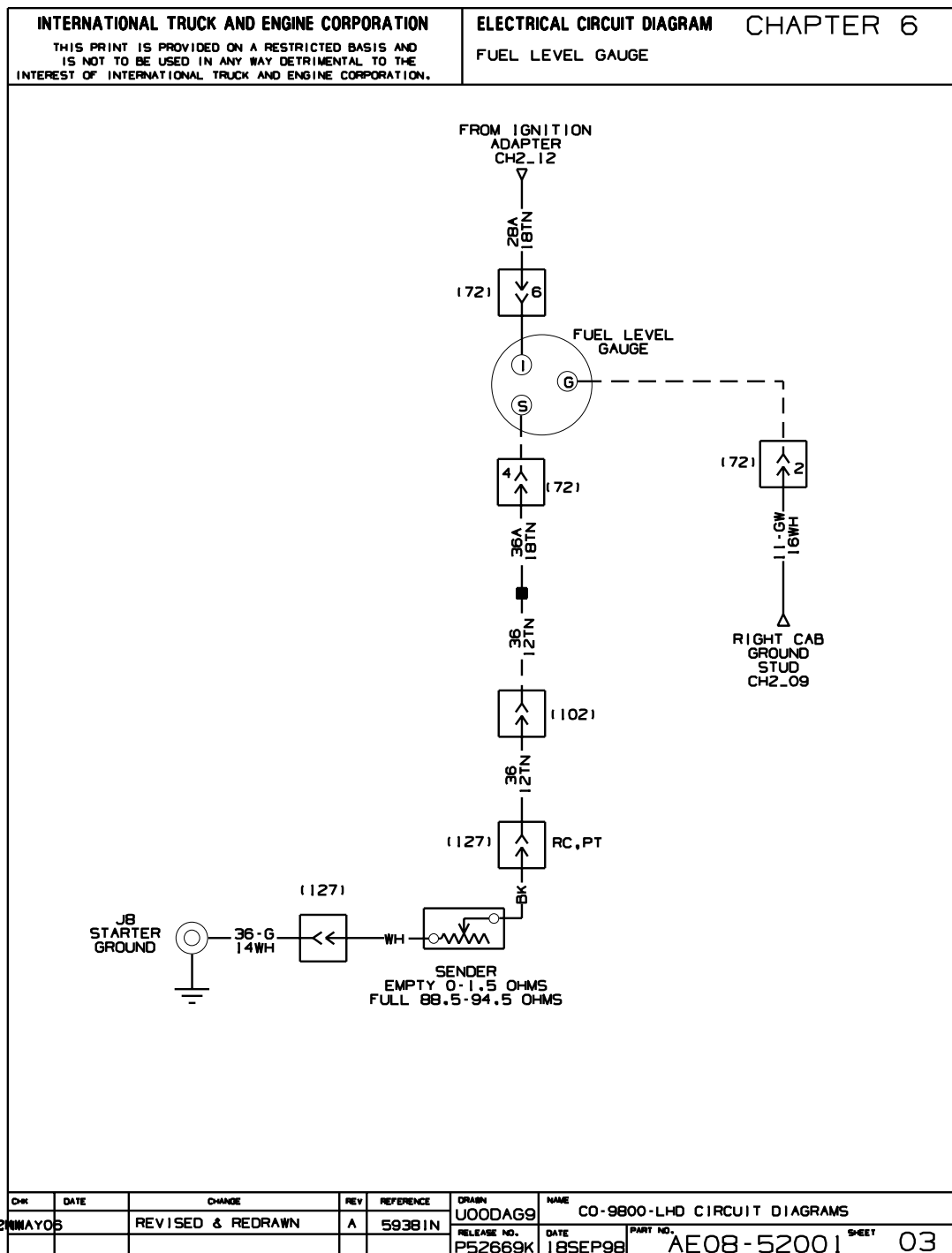


Figure 57 Fuel Level Gauge

6.4. AGRO SERIAL DATA LINK TRANSLATOR, P. 4

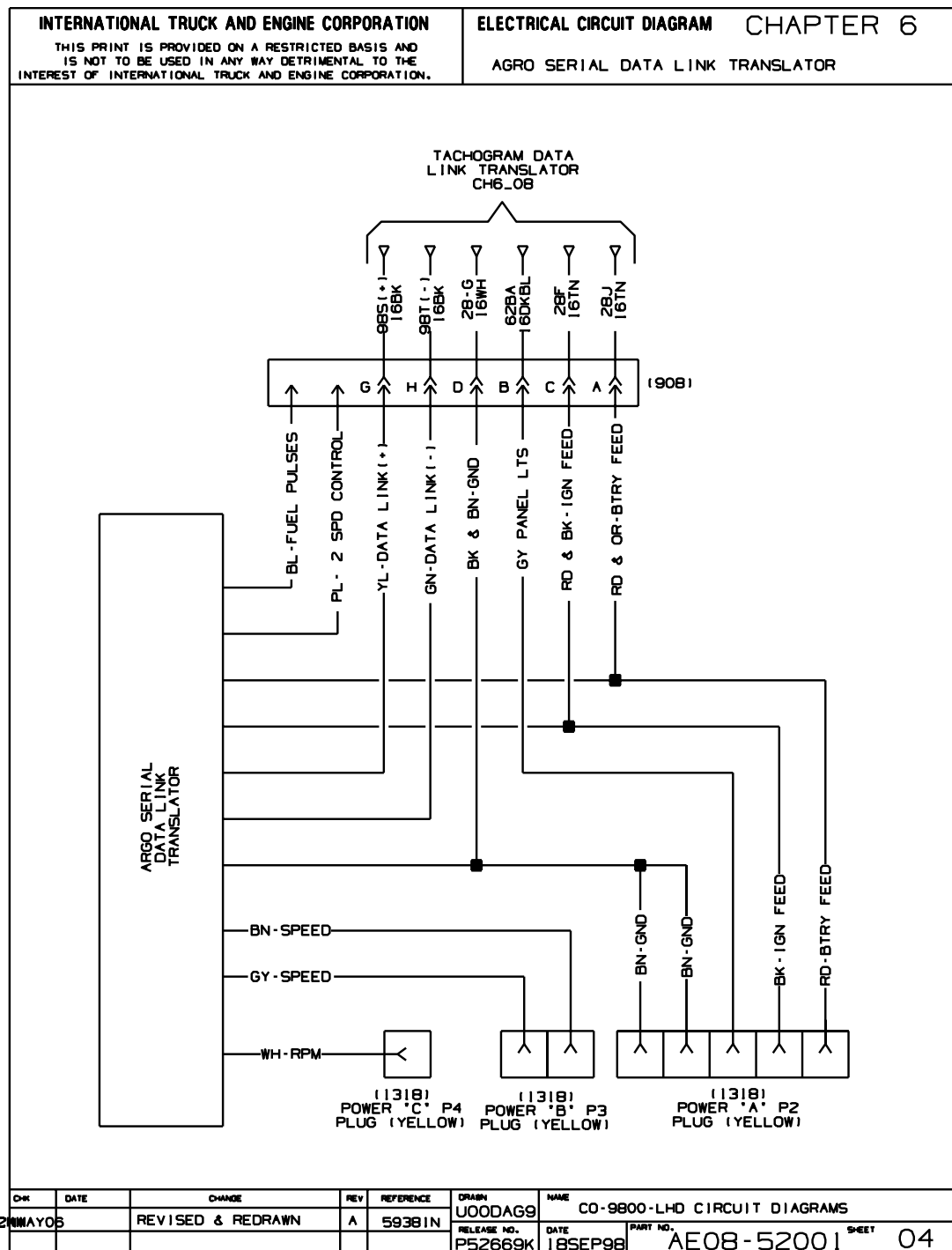


Figure 58 Agro Serial Data Link Translator

6.5. VOLTMETER GAUGE, P. 5

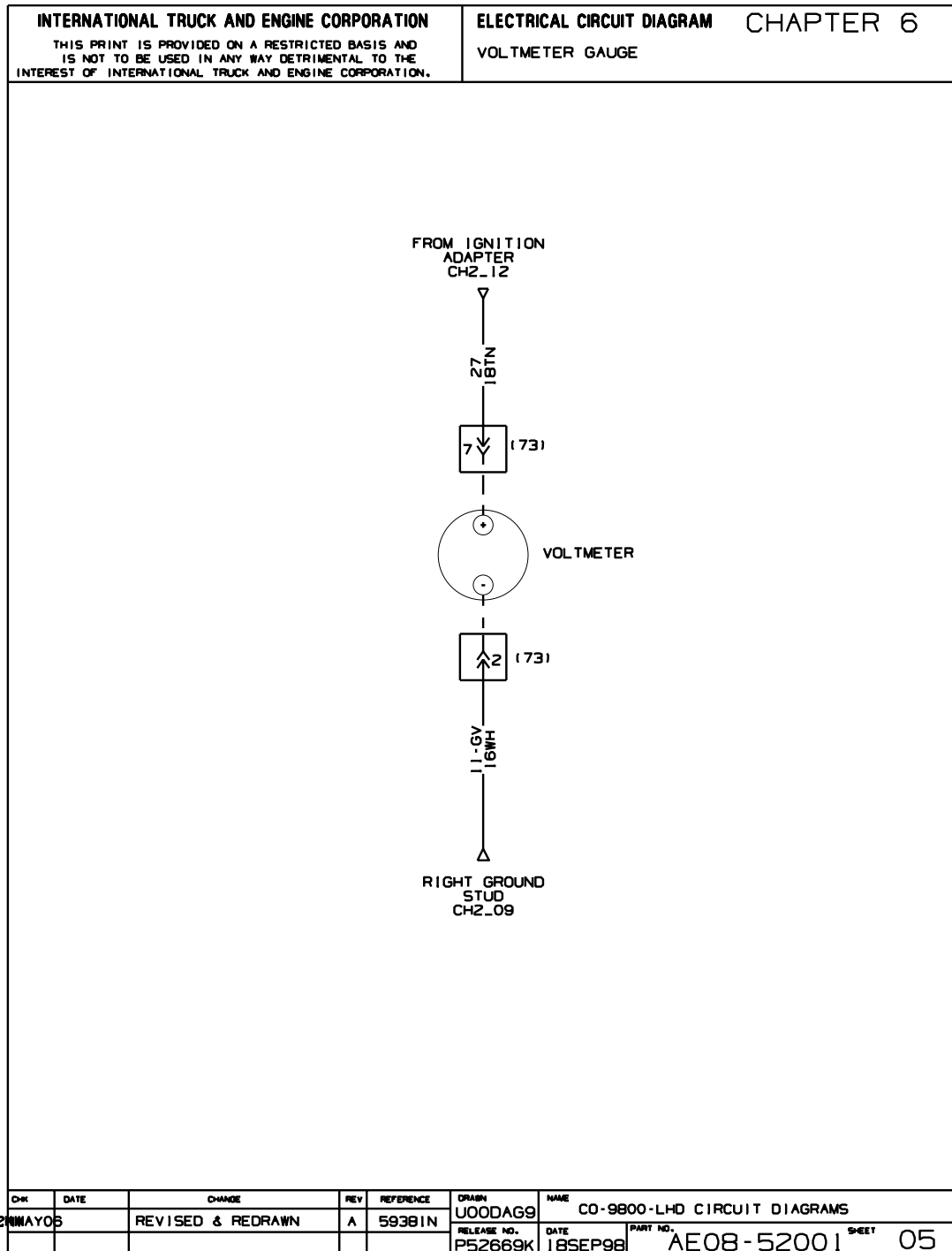


Figure 59 Voltmeter Gauge

6.6. ENGINE OIL PRESSURE GAUGE (OPTIONAL), P. 6

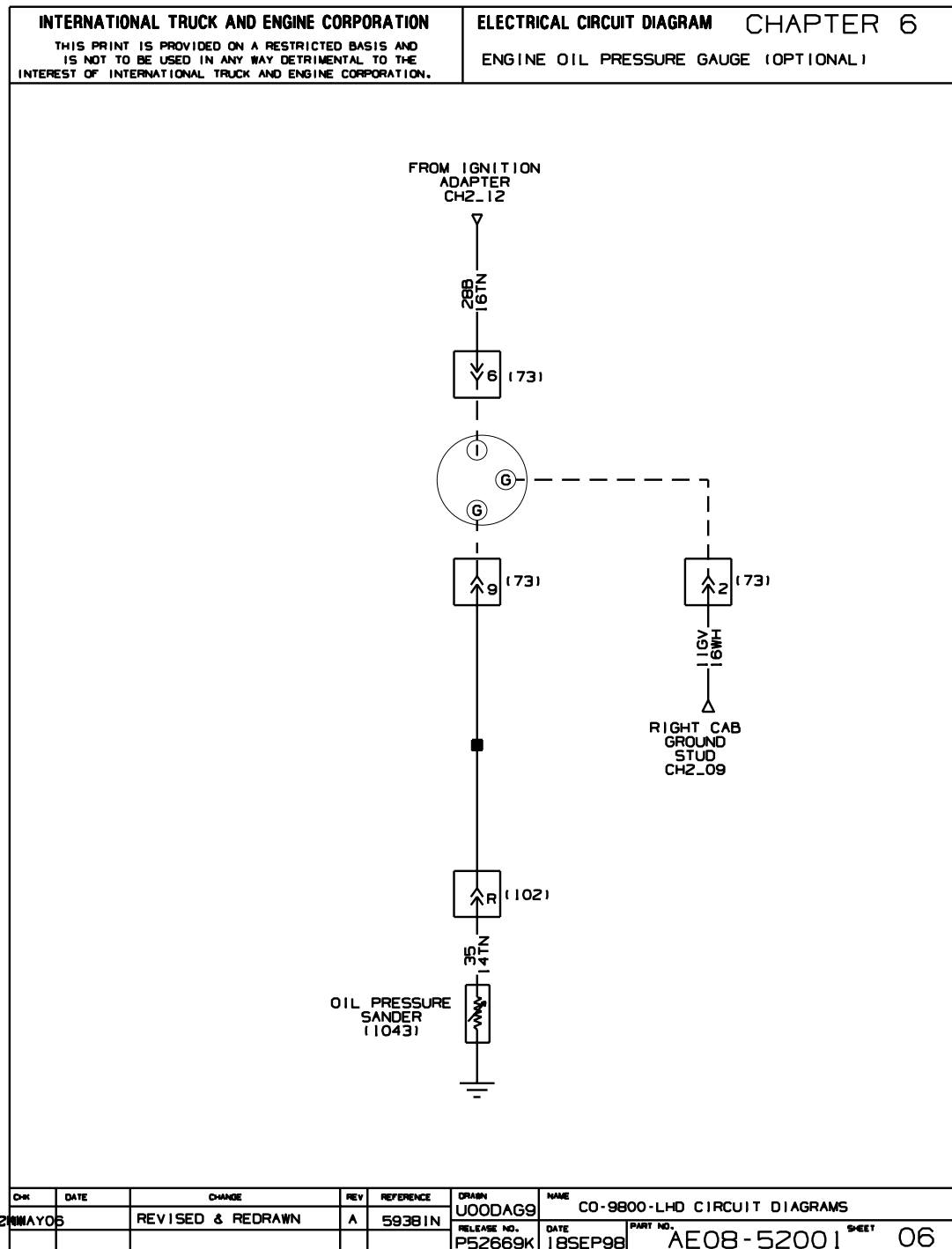


Figure 60 Engine Oil Pressure Gauge (Optional)

6.7. TRANSMISSION OIL TEMPERATURE GAUGE, P. 7

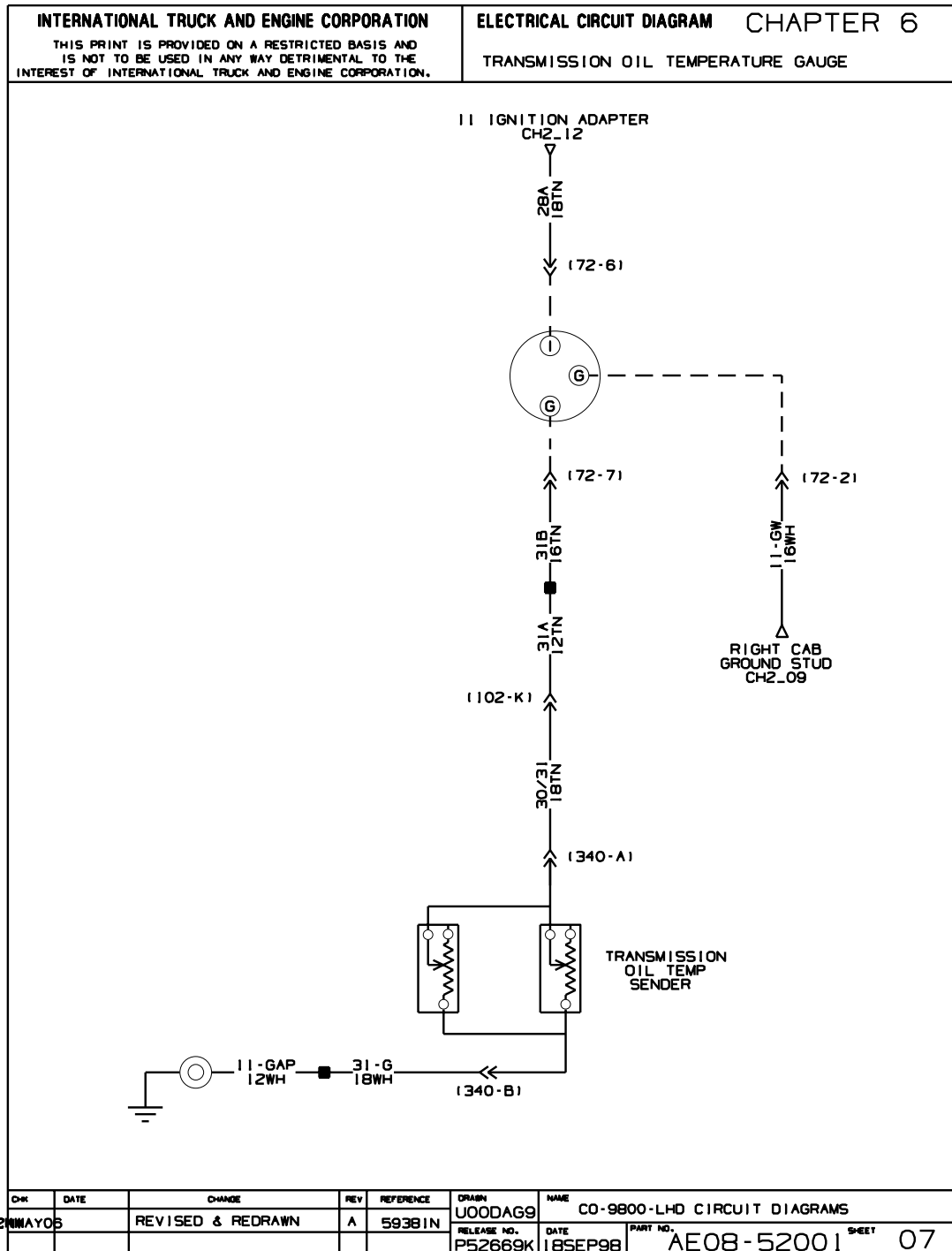


Figure 61 Transmission Oil Temperature Gauge

6.8. TACHOGRAPH DATALINK TRANSLATOR, P. 8

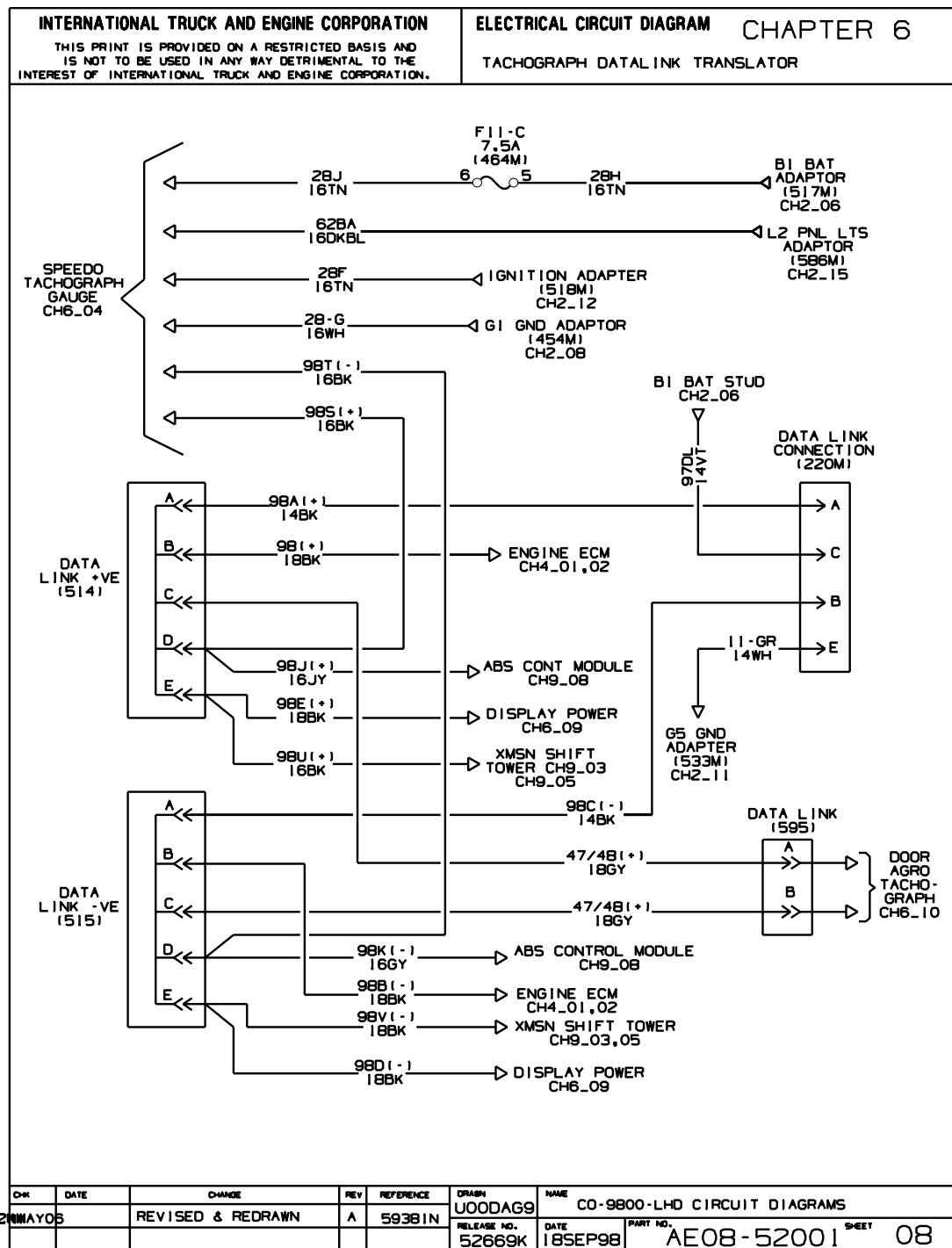


Figure 62 Tachograph Datalink Translator

6.9. CUMMINS ROAD RELAY DISPLAY, P. 9

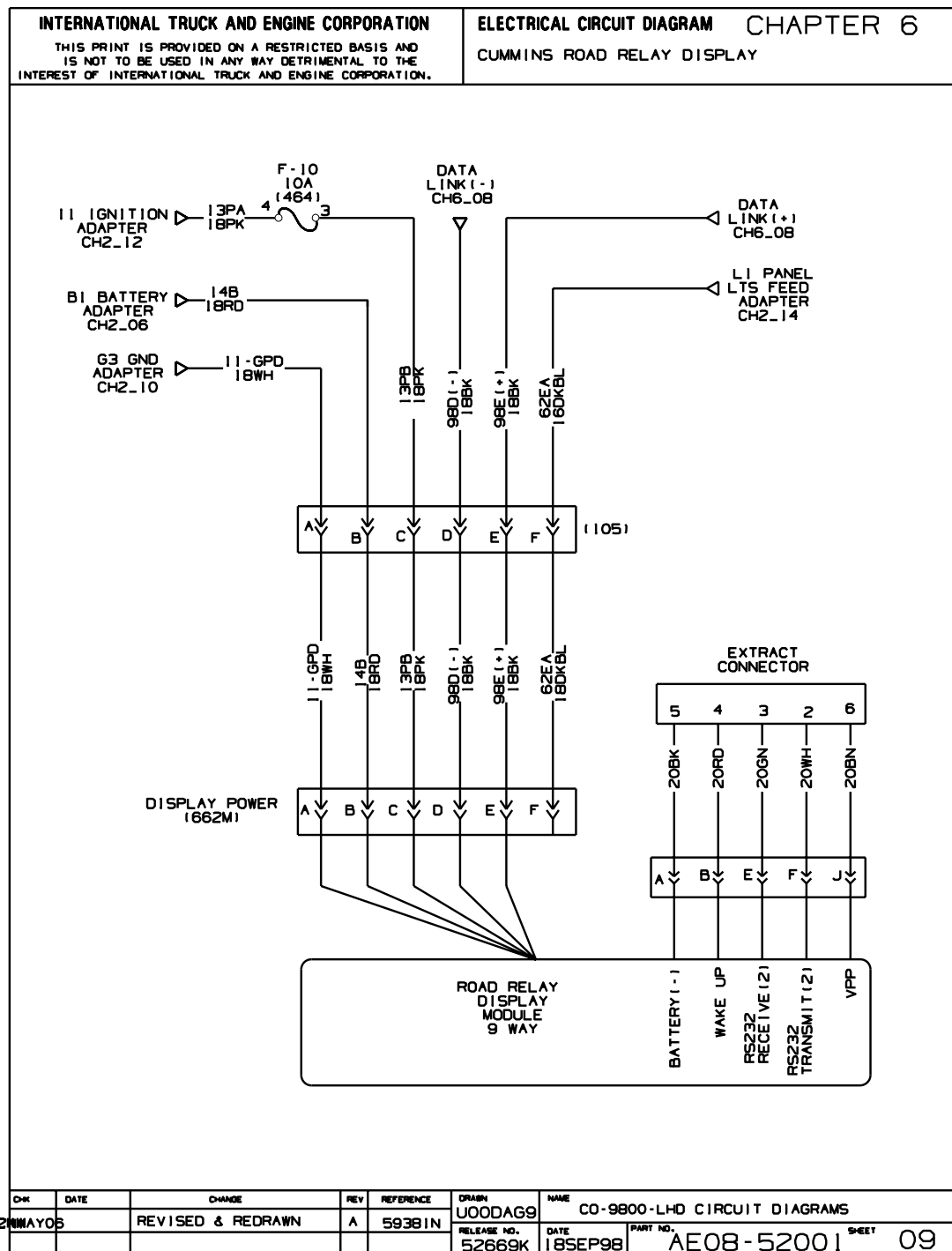


Figure 63 Cummins Road Relay Display

6.10. ARGO VDO OR TACHOGRAPH, P. 10

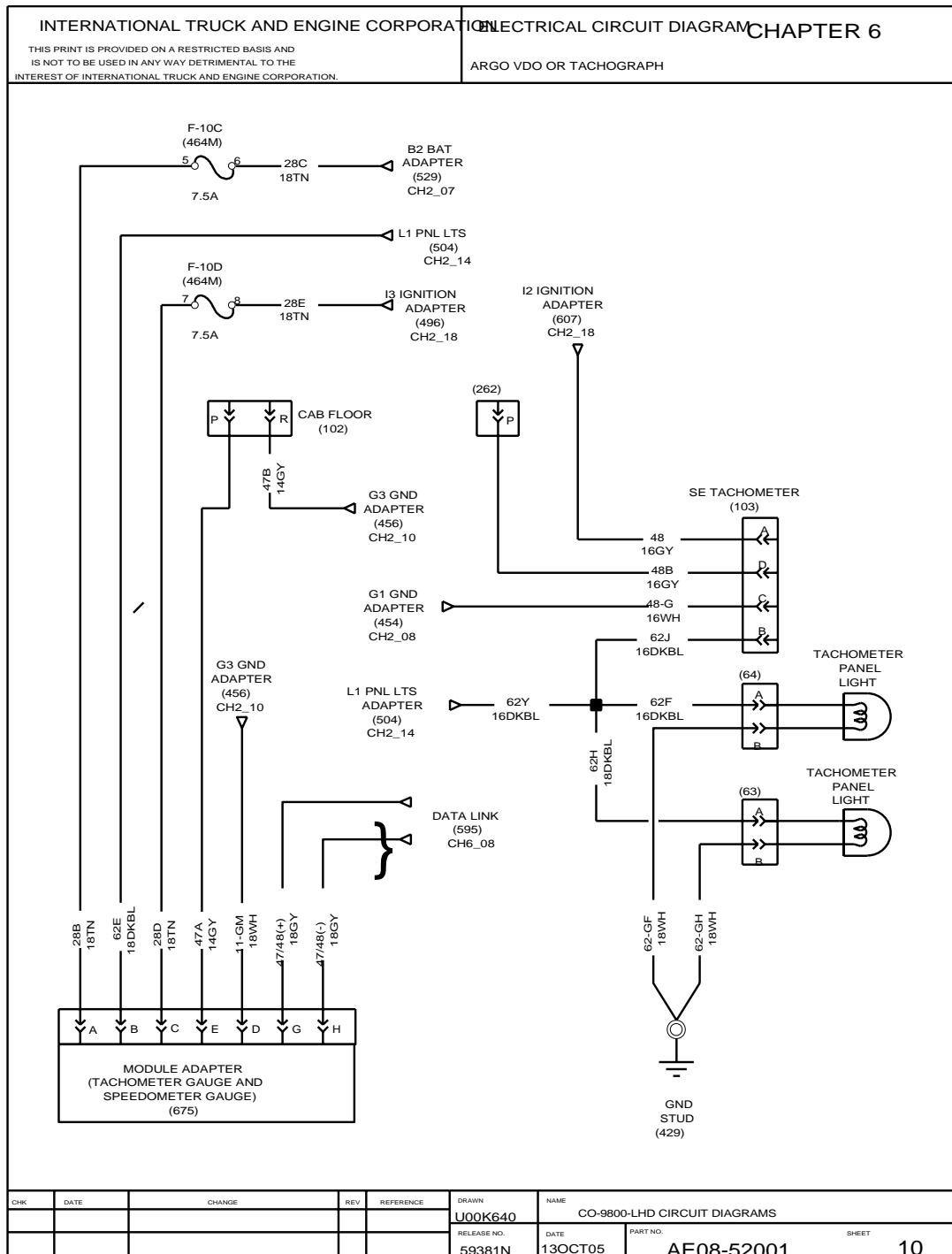


Figure 64 Argo VDO or Tachograph

7. WARNING LIGHTS (LHD — CHAPTER 7)

7.1. LOW AIR PRESSURE WARNING LIGHT, P. 1

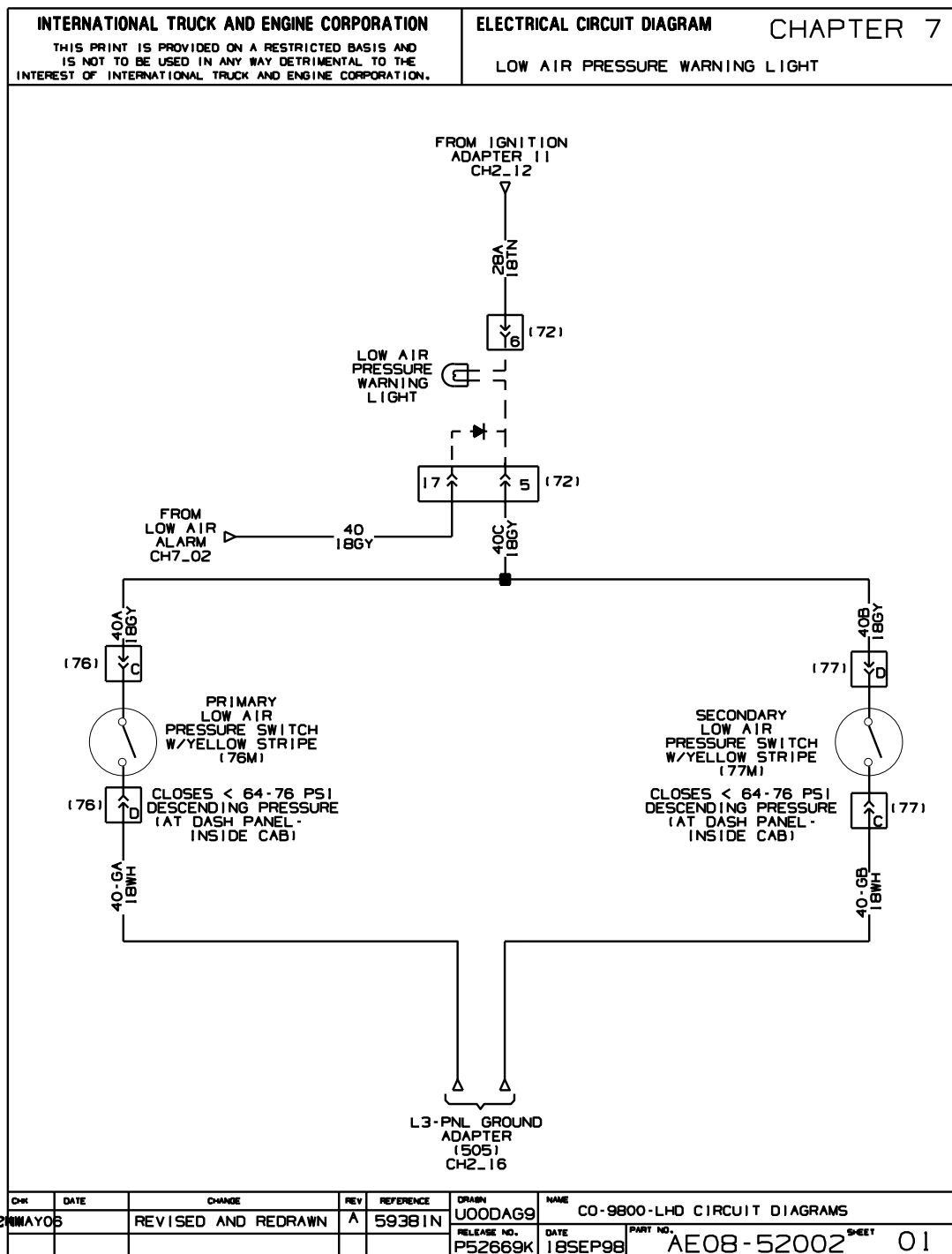


Figure 66 Low Air Pressure Warning Light

7.2. PDL WARNING LIGHT AND ALARM, P. 2

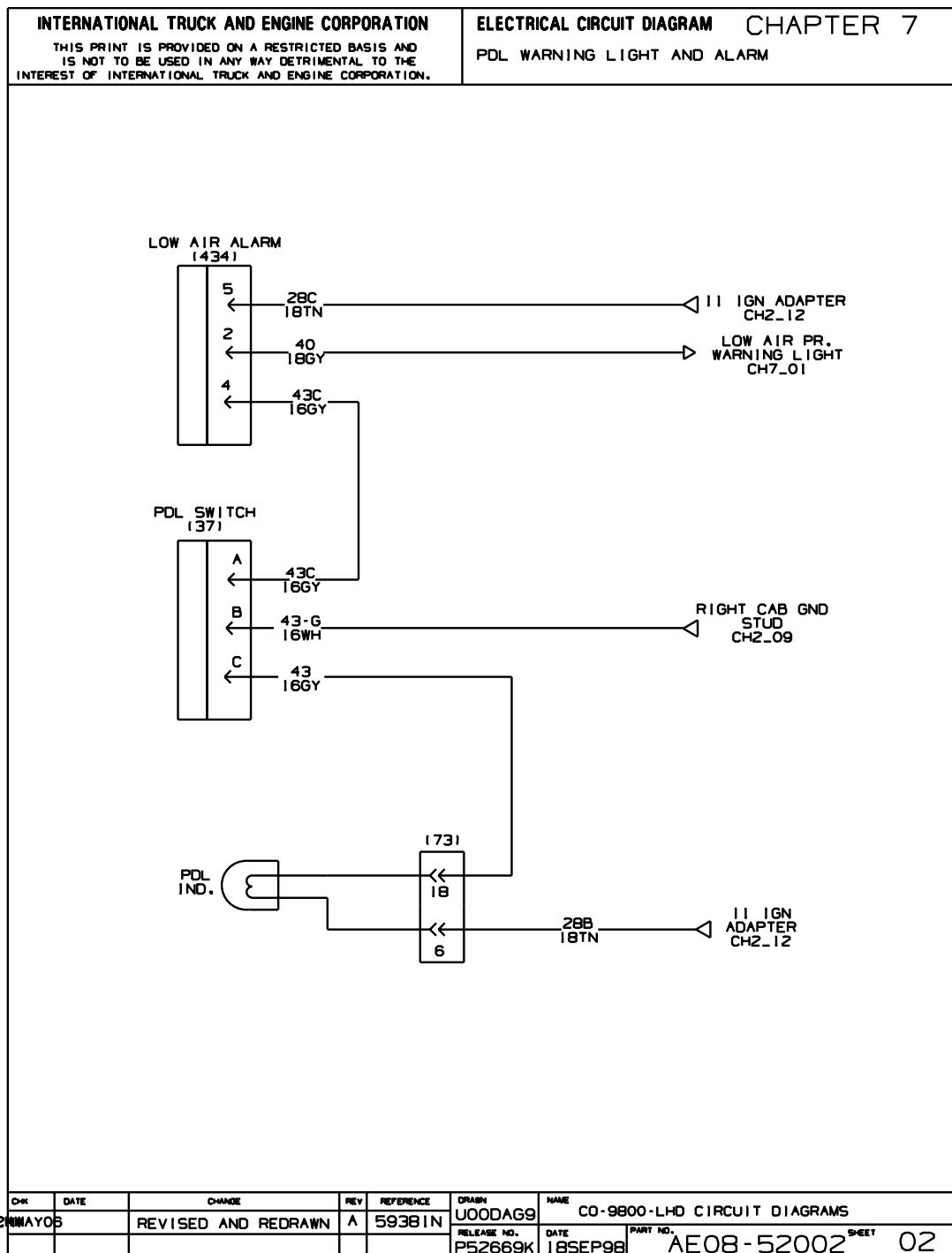


Figure 67 PDL Warning Light and Alarm

7.3. STOP AND PARKING WARNING LIGHT, P. 3

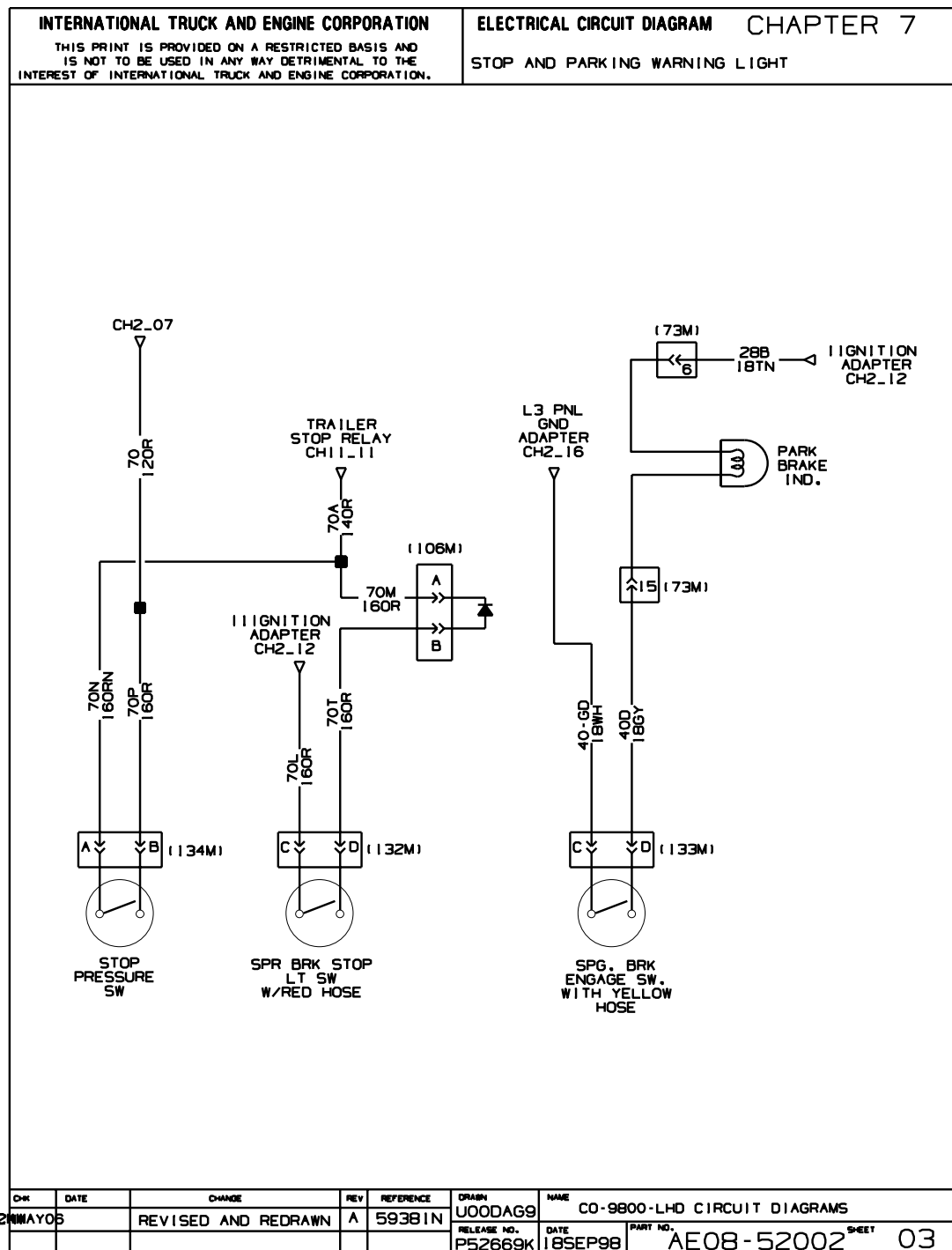


Figure 68 Stop and Parking Warning Light

7.4. PDL JUMPER, P. 4

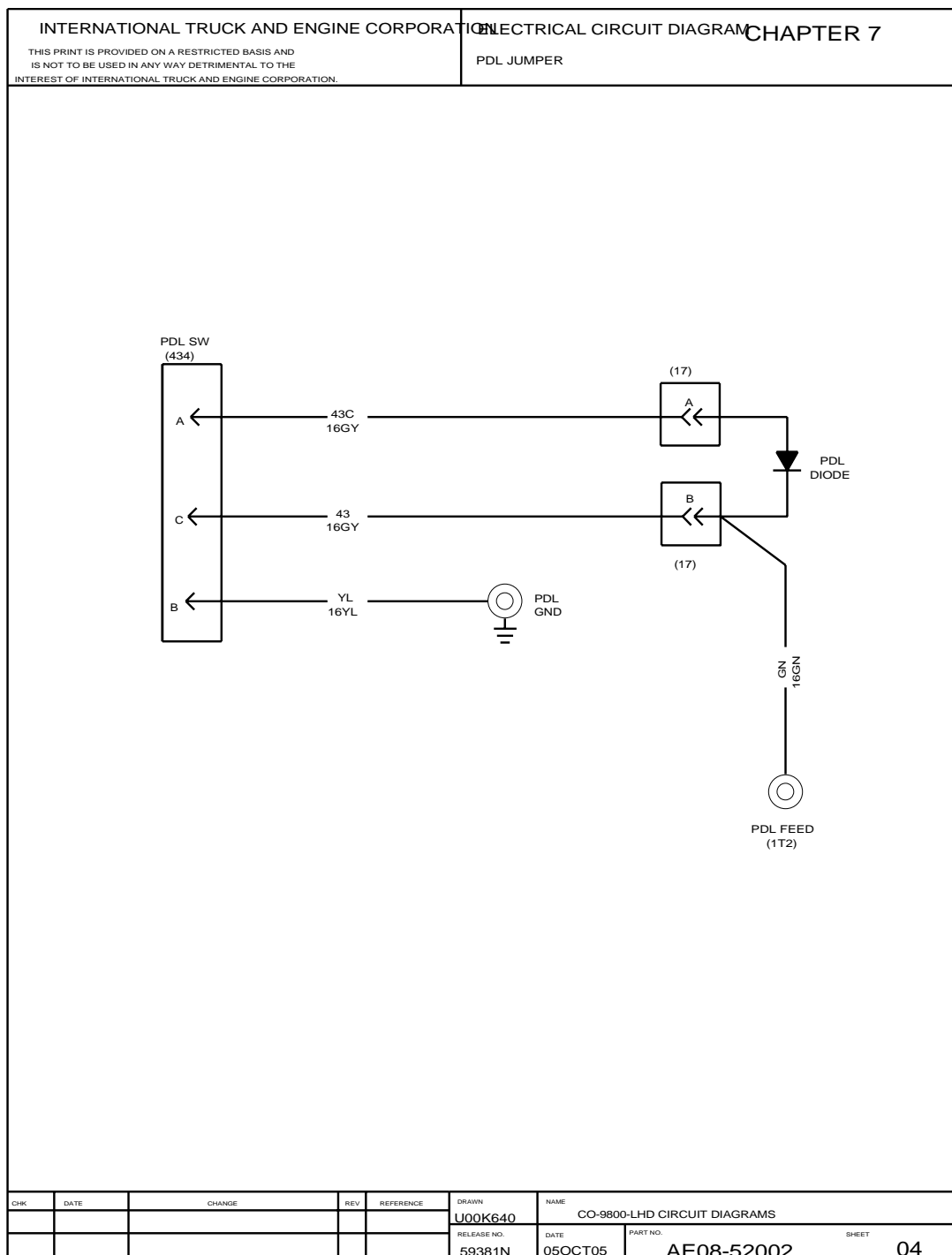


Figure 69 PDL Jumper

7.5. WATER IN FUEL, P. 5

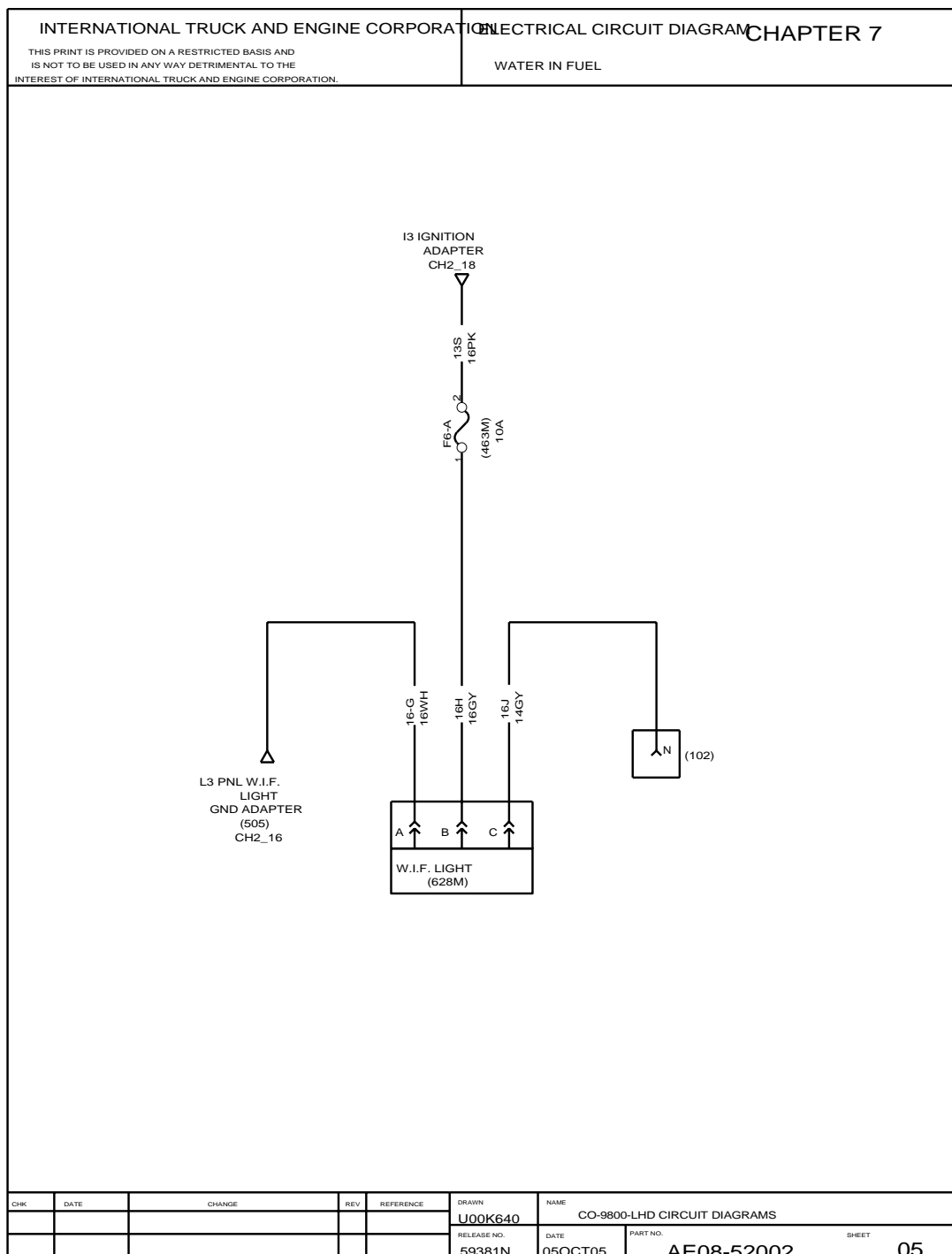


Figure 70 Water in Fuel

8. CAB ACCESSORIES (LHD — CHAPTER 8)

8.1. CIGAR LIGHTER, P. 1

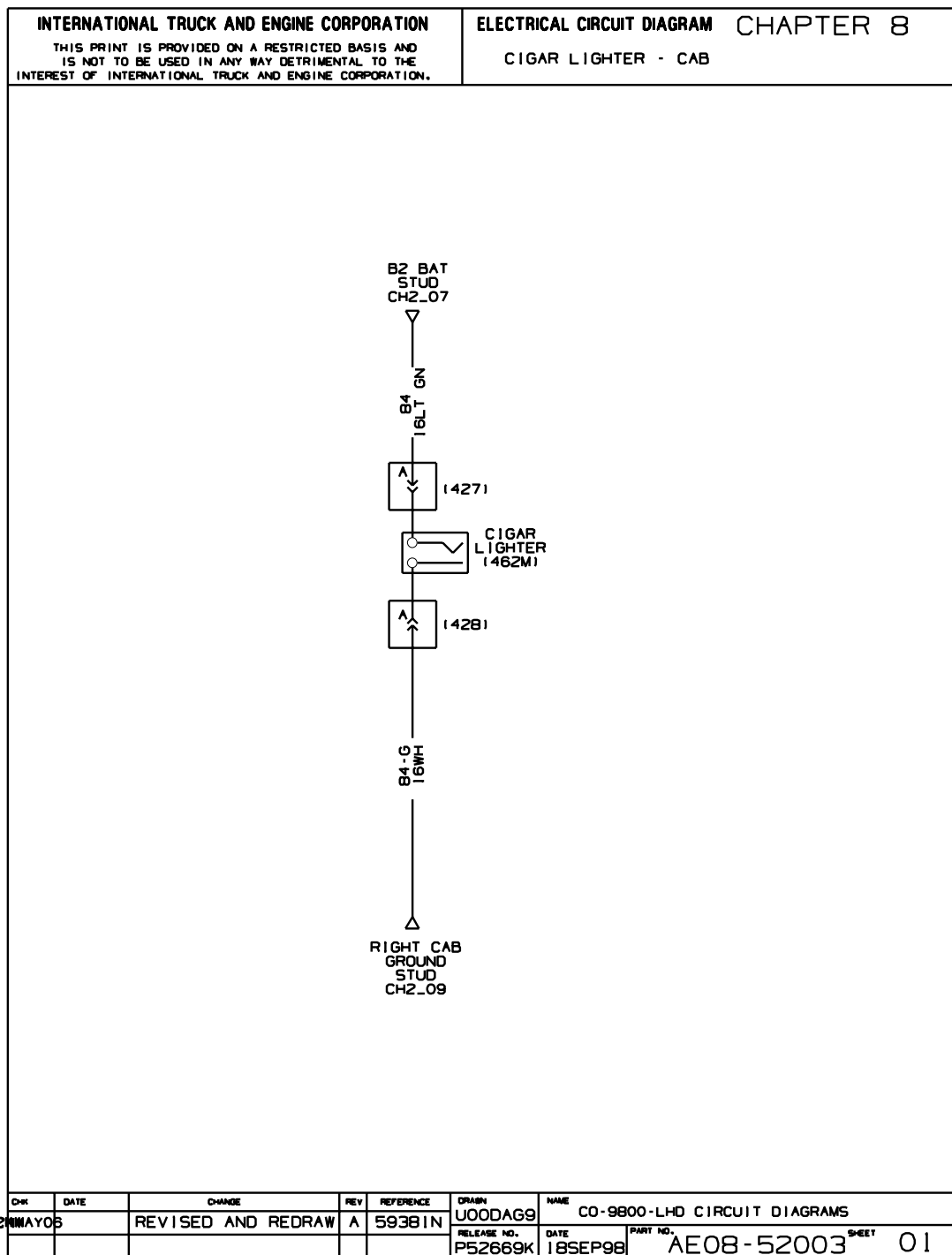


Figure 71 Cigar Lighter

8.2. ELECTRIC WINDOW — LT, P. 2

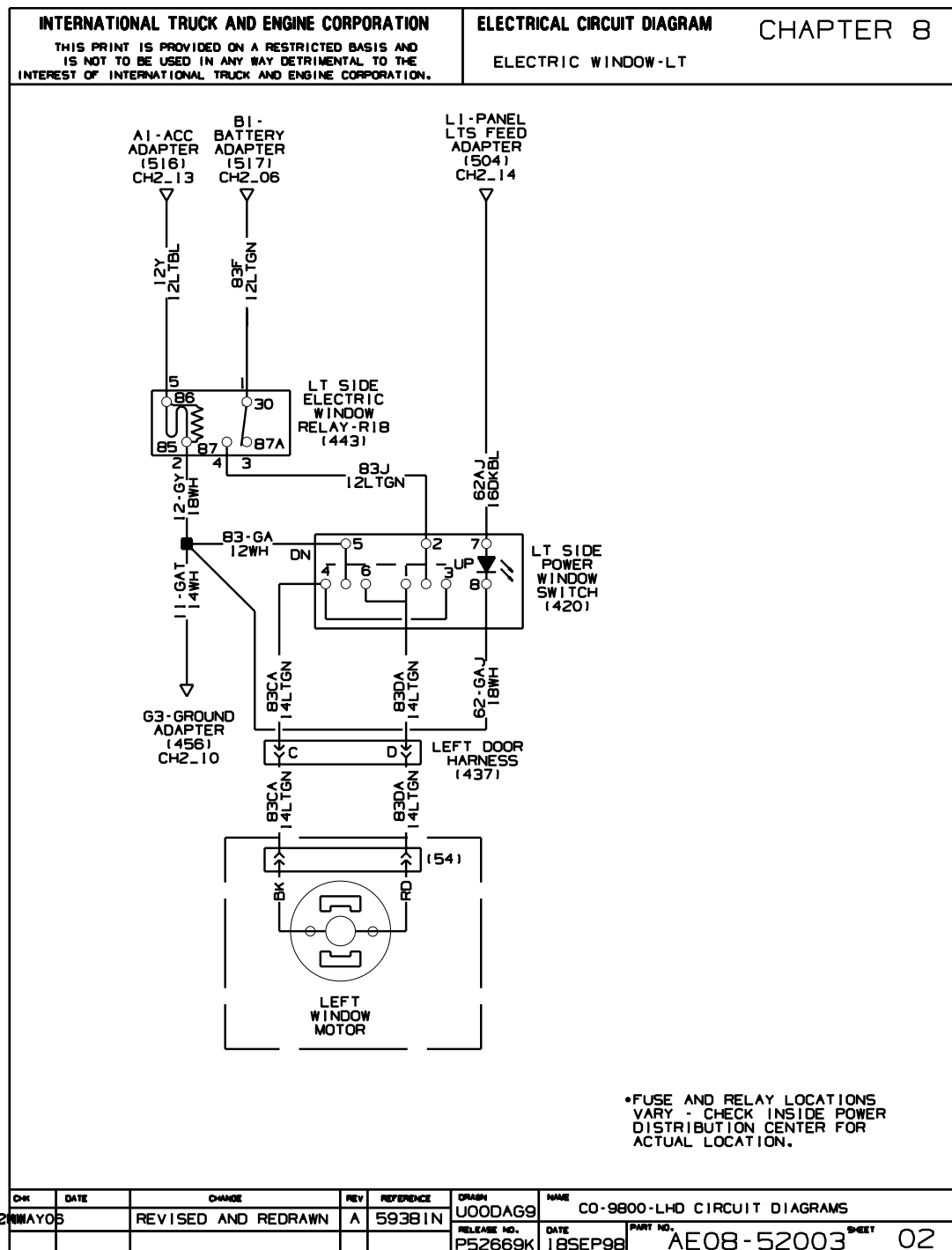


Figure 72 Electric Window — LT

8.3. ELECTRIC WINDOW — RIGHT, P. 3

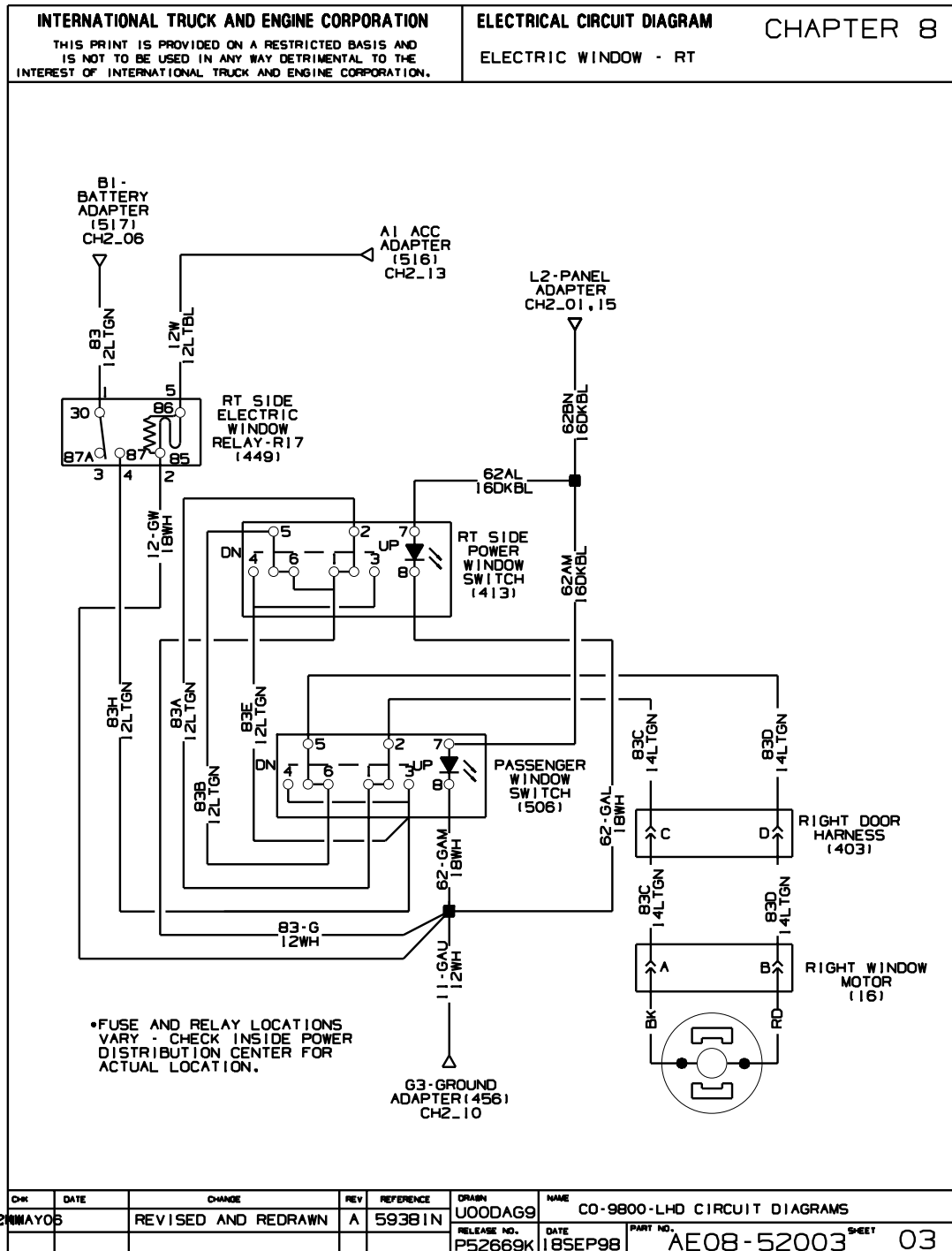


Figure 73 Electric Window — Right

8.4. ELECTRIC WINDSHIELD WIPERS WITH INTERMITTENT WIPE AND WASH, P. 4

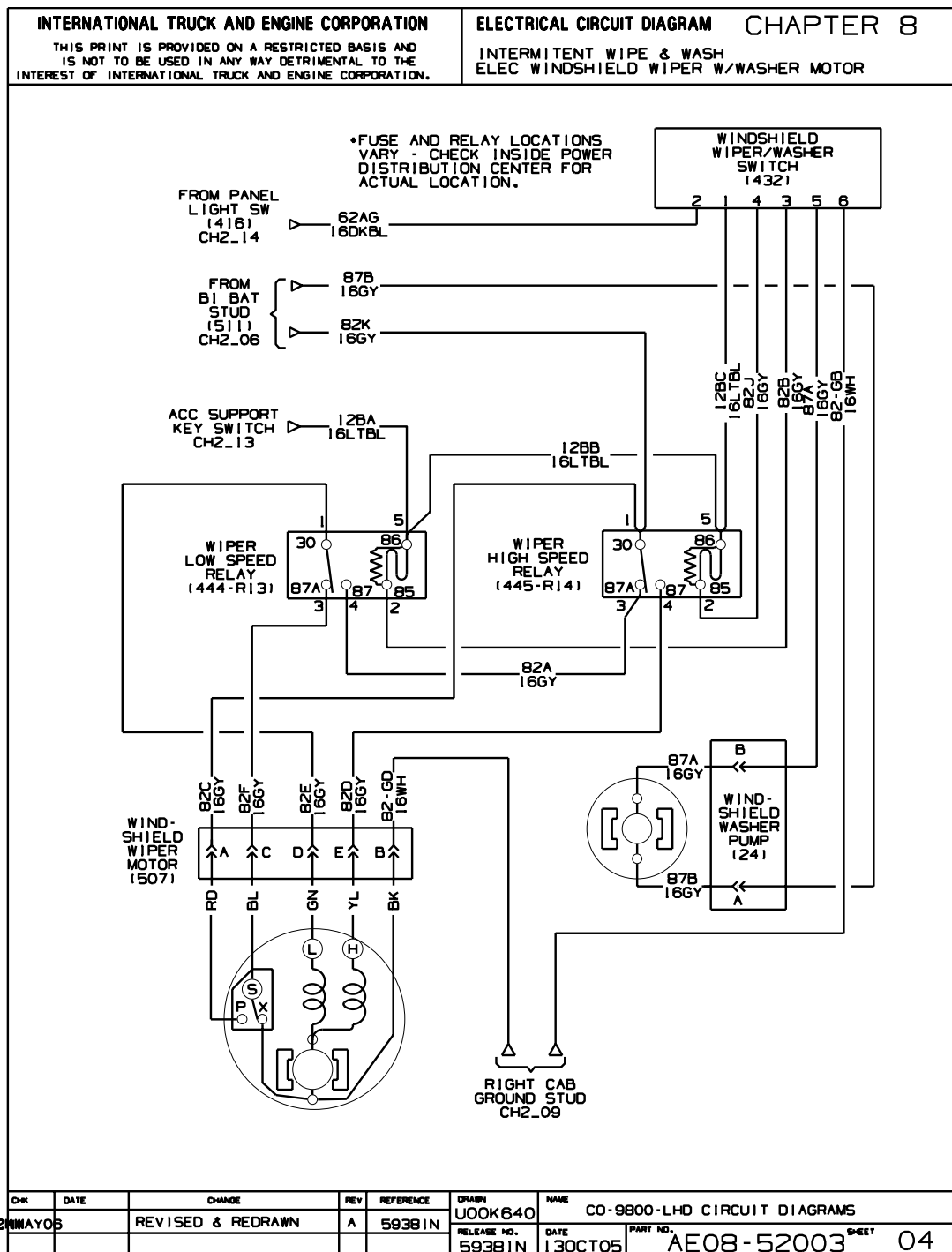


Figure 74 Electric Windshield Wipers with Intermittent Wipe and Wash

8.6. RADIO CAB SPEAKER, P. 6

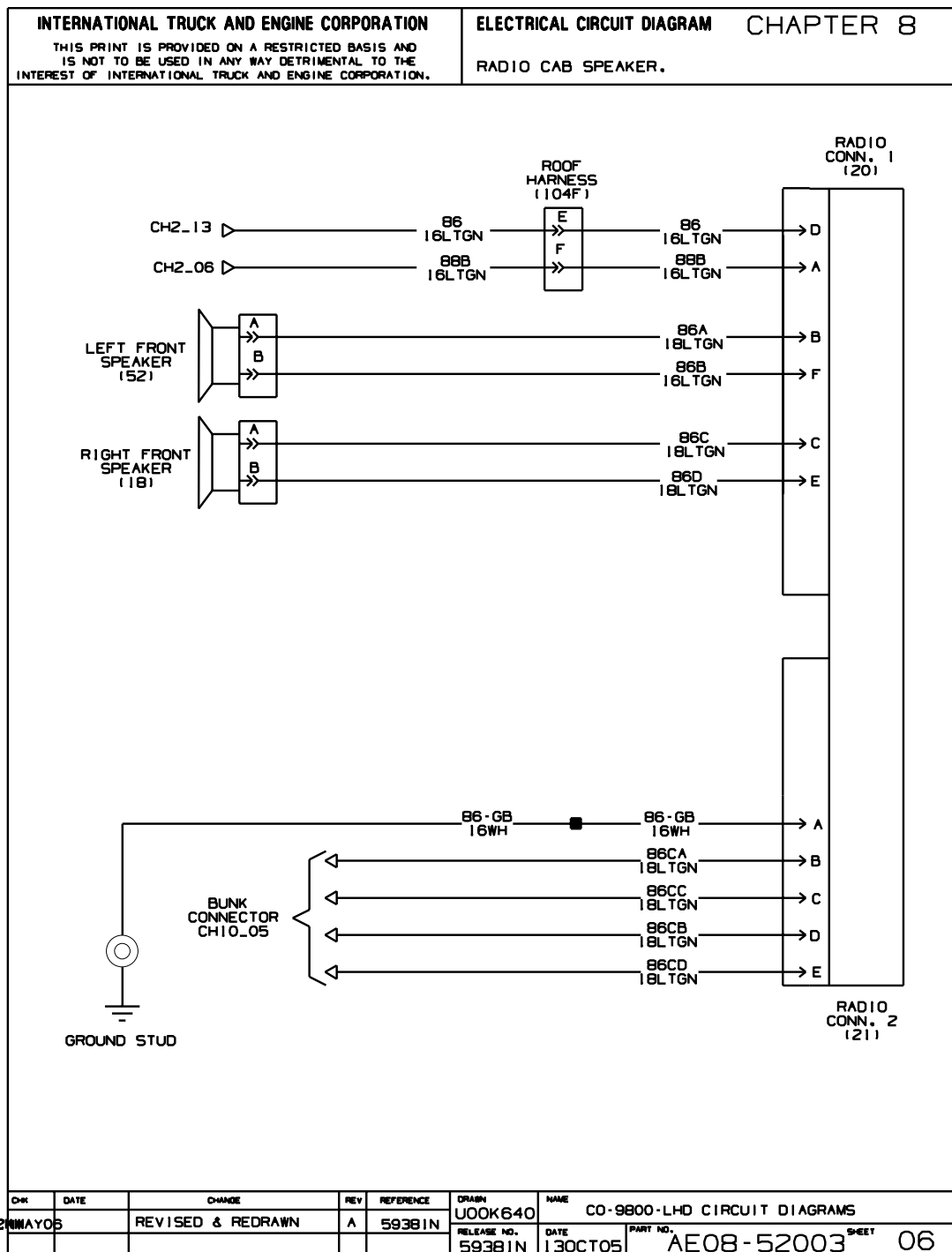


Figure 76 Radio Cab Speaker

8.7. HEATED MIRROR LIGHT, P. 7

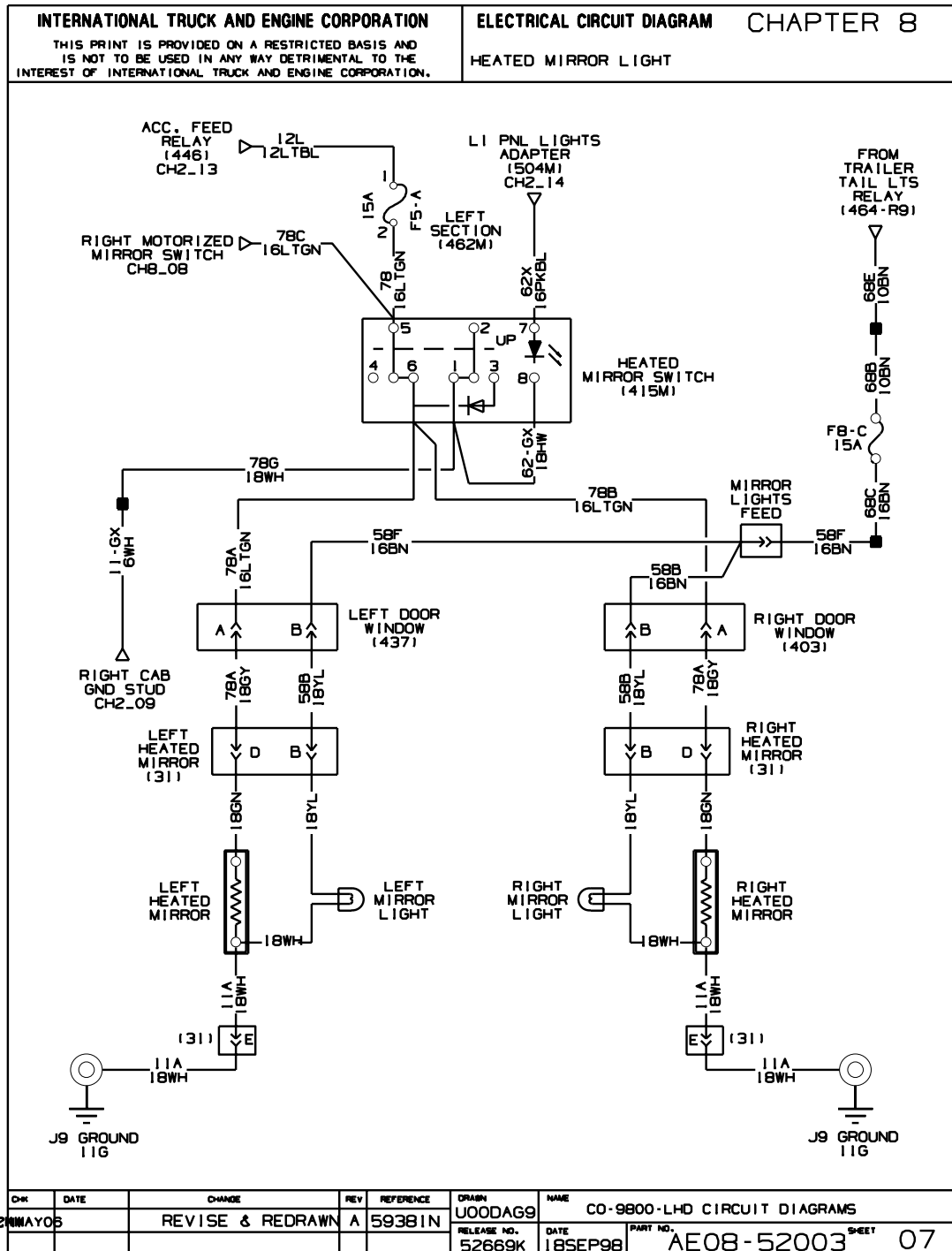


Figure 77 Heated Mirror Light

8.8. LEFT AND RIGHT MOTORIZED MIRROR, P. 8

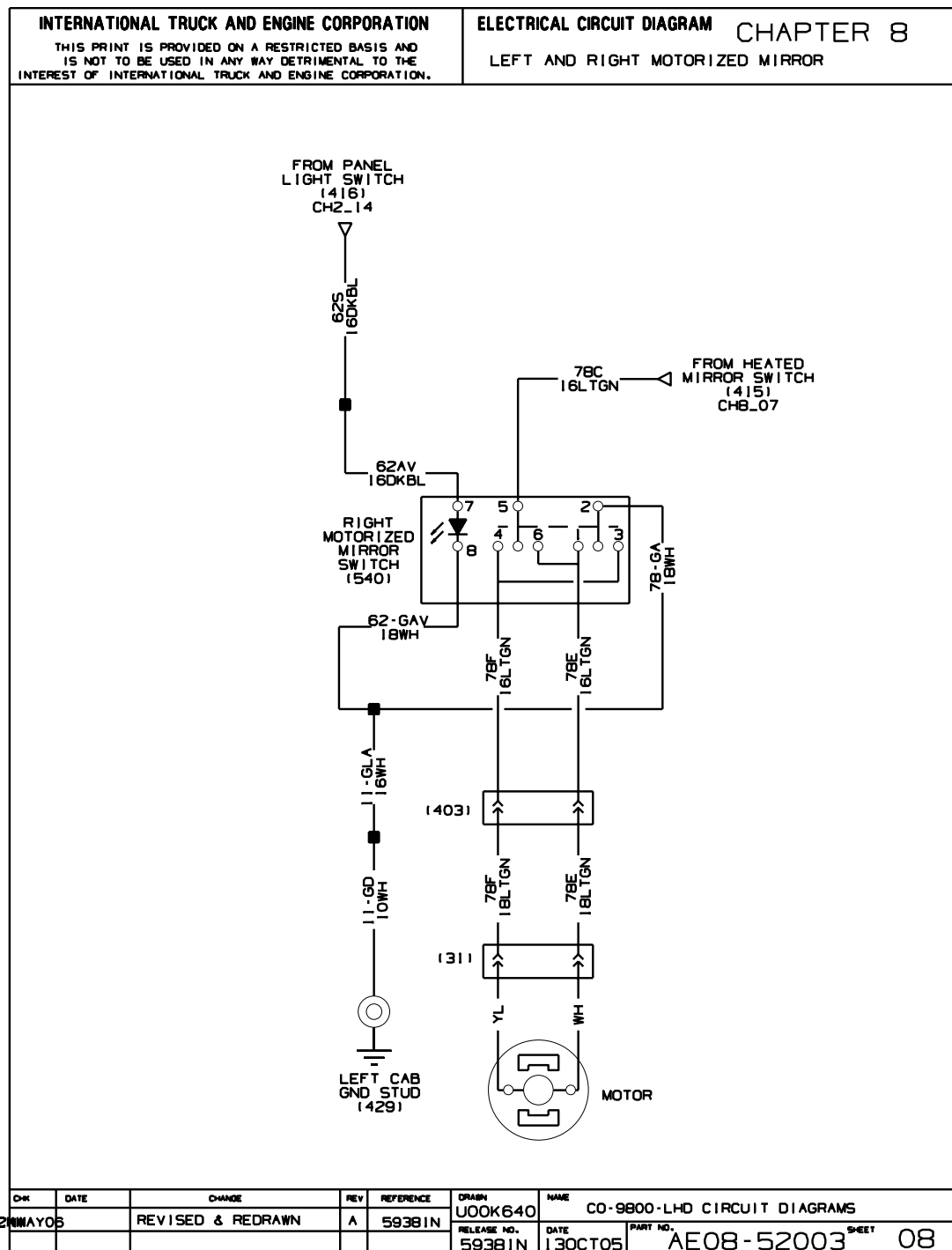


Figure 78 Left and Right Motorized Mirror

8.9. DUAL AXIS MOTORIZED MIRROR, P. 9

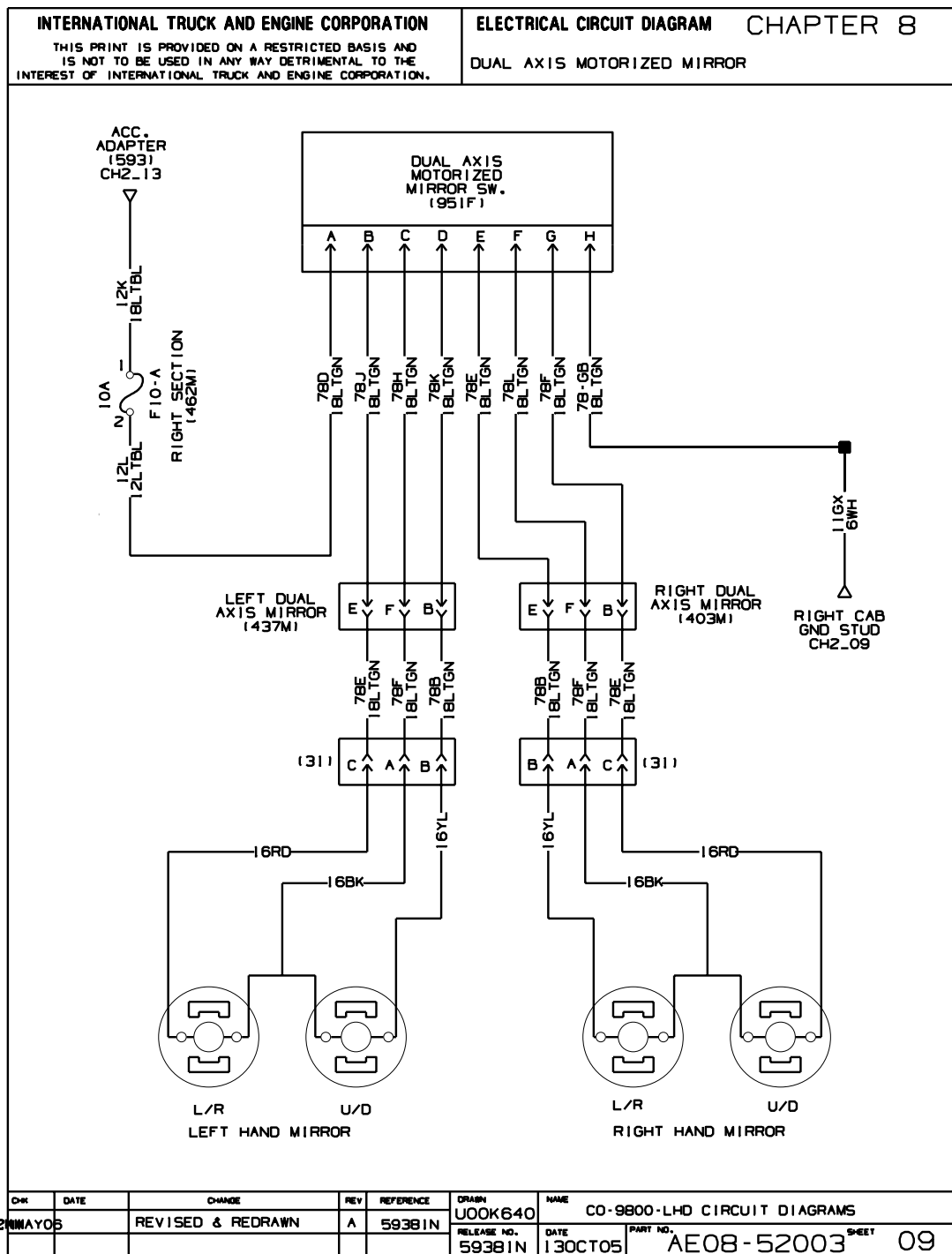


Figure 79 Dual Axis Motorized Mirror

8.10. DEFROSTER FAN, P. 10

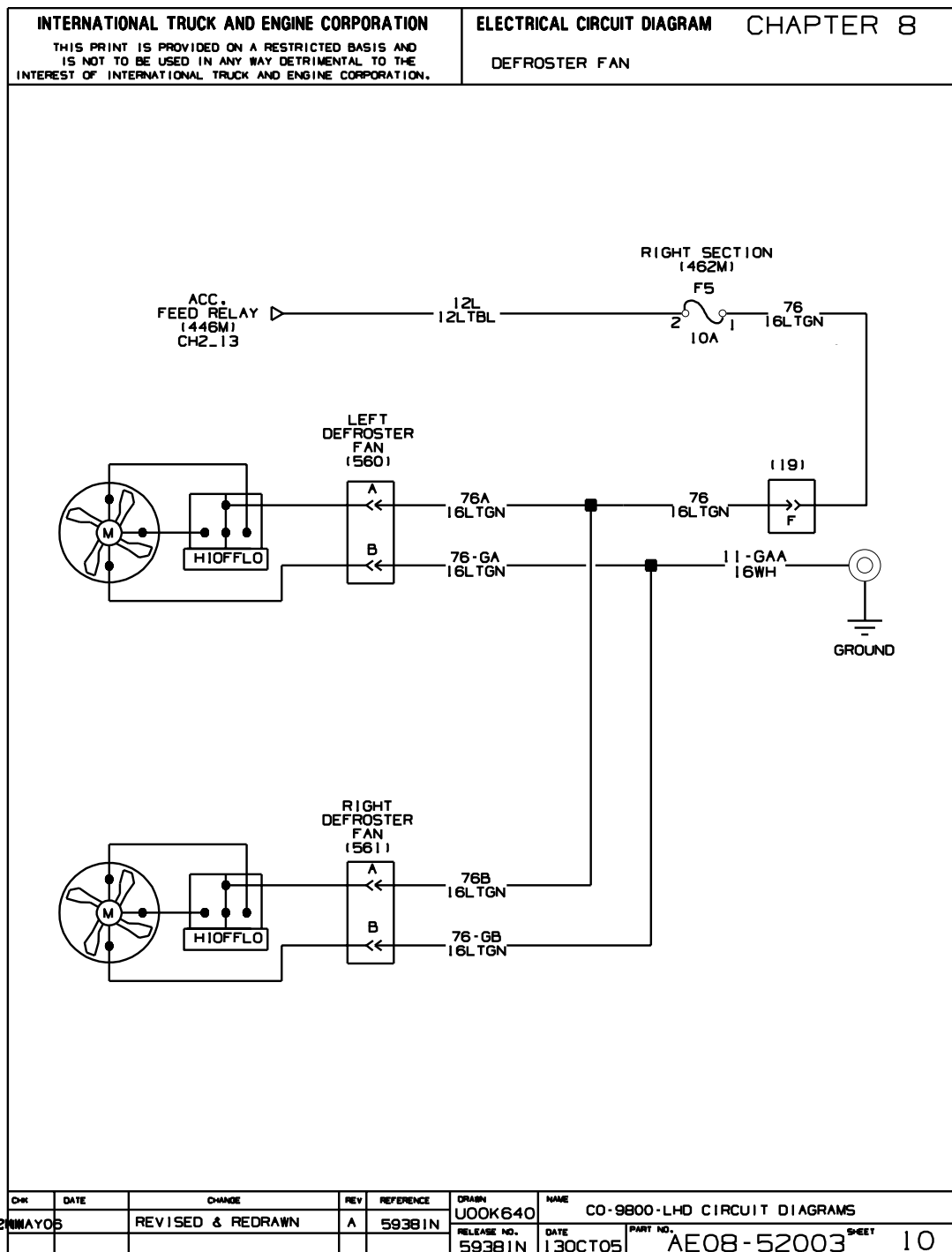


Figure 80 Defroster Fan

9. CHASSIS ACCESSORIES (LHD — CHAPTER 9)

9.1. AIR DRYER AND HEATED FUEL FILTER, P. 1

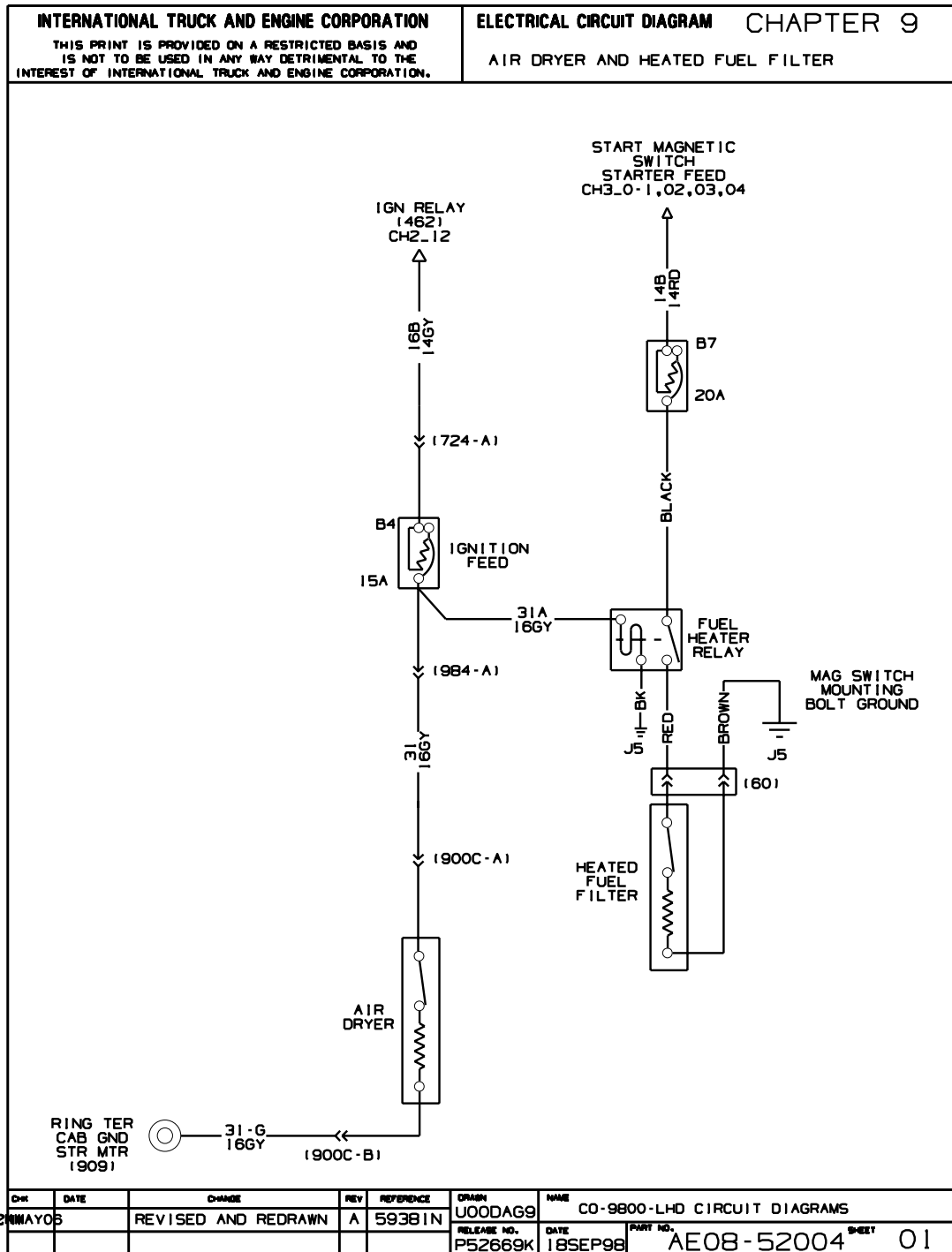


Figure 81 Air Dryer and Heated Fuel Filter

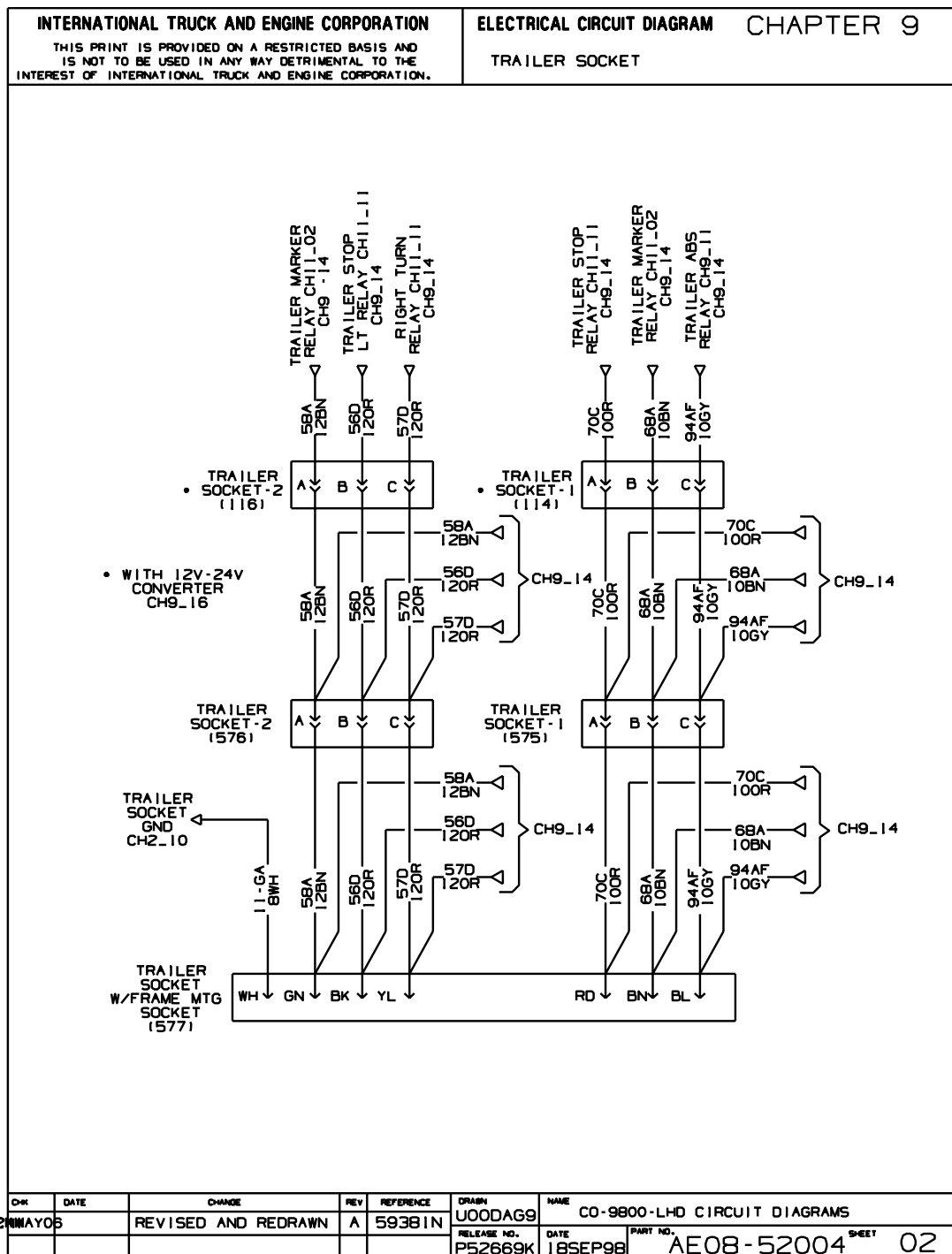


Figure 82 Trailer Socket

9.3. EATON AUTO SHIFT TRANSMISSION, P. 3

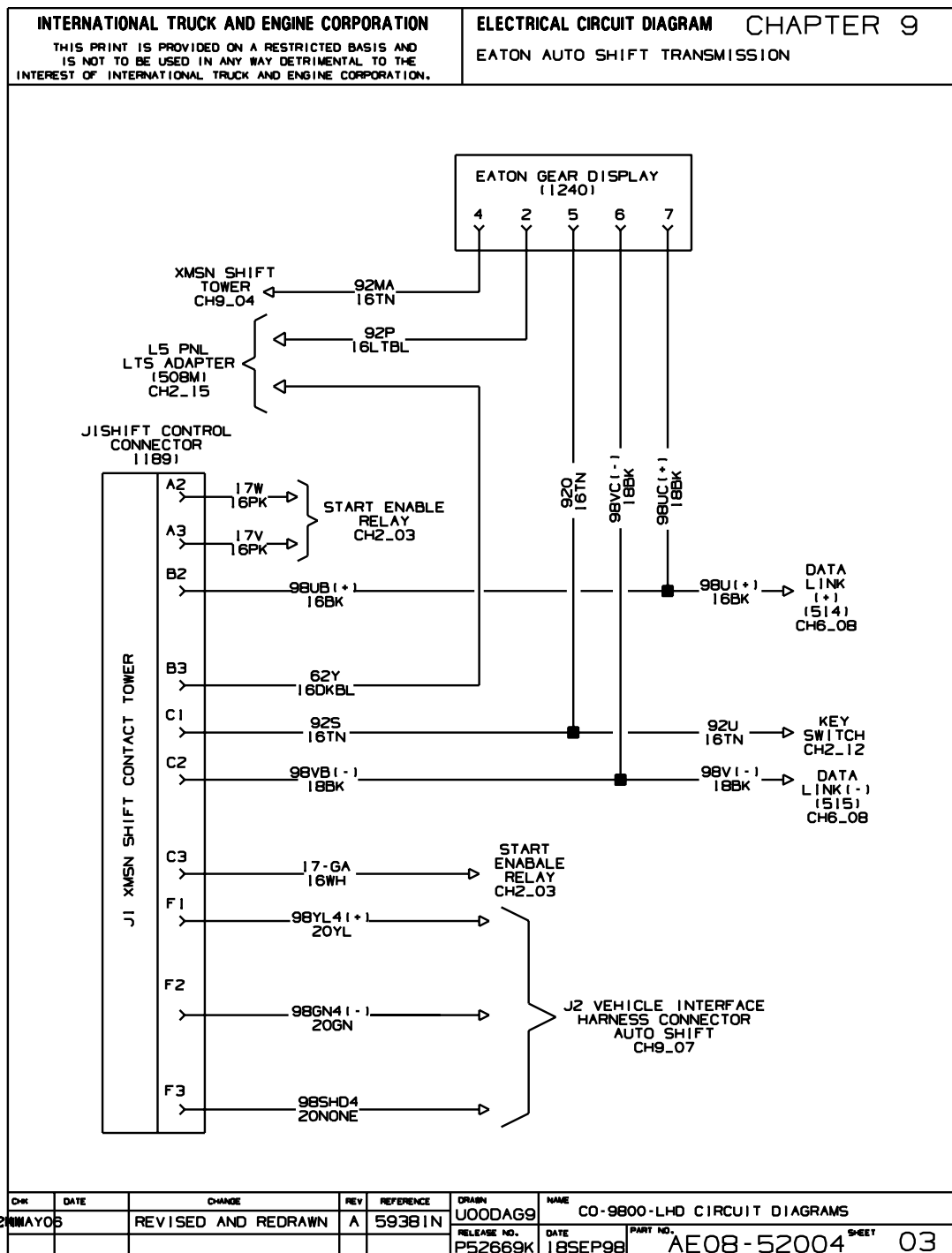


Figure 83 Eaton Auto Shift Transmission

9.4. EATON AUTO SHIFT TRANSMISSION (CONT.), P. 4

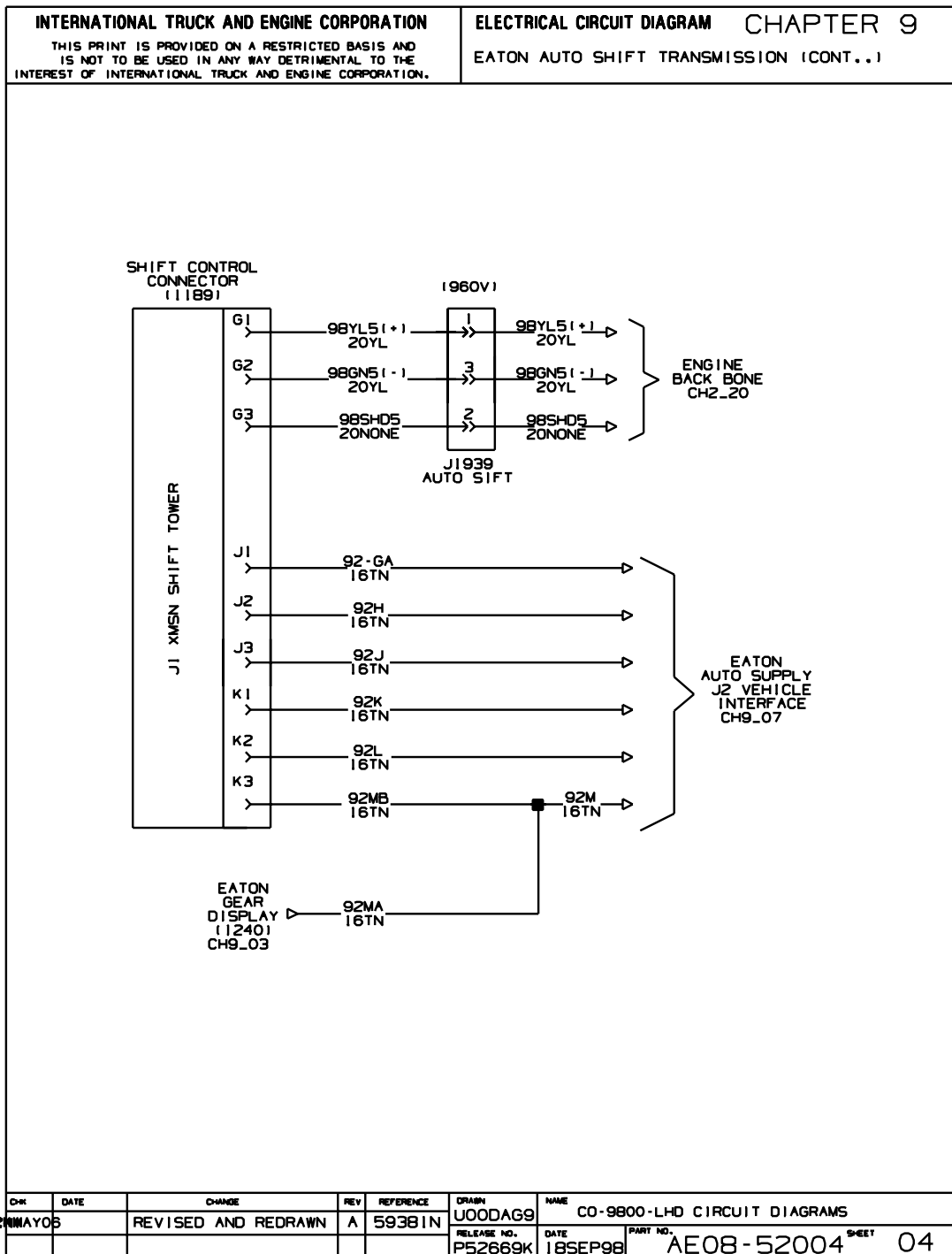


Figure 84 Eaton Auto Shift Transmission (cont.)

9.5. EATON AUTO SHIFT-2 TRANSMISSION, P. 5

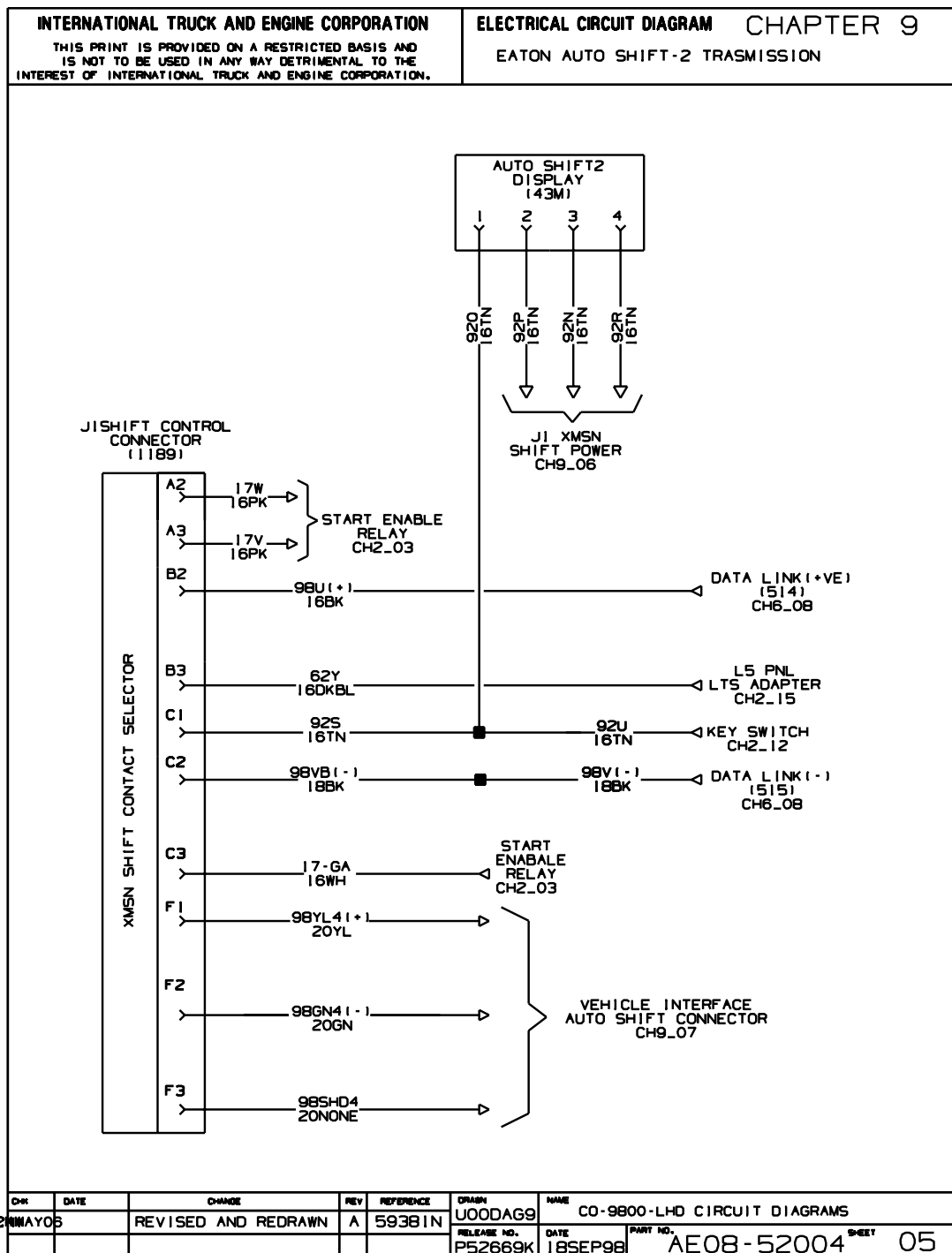


Figure 85 Eaton Auto Shift-2 Transmission

9.6. EATON AUTO SHIFT TRANSMISSION, P. 6

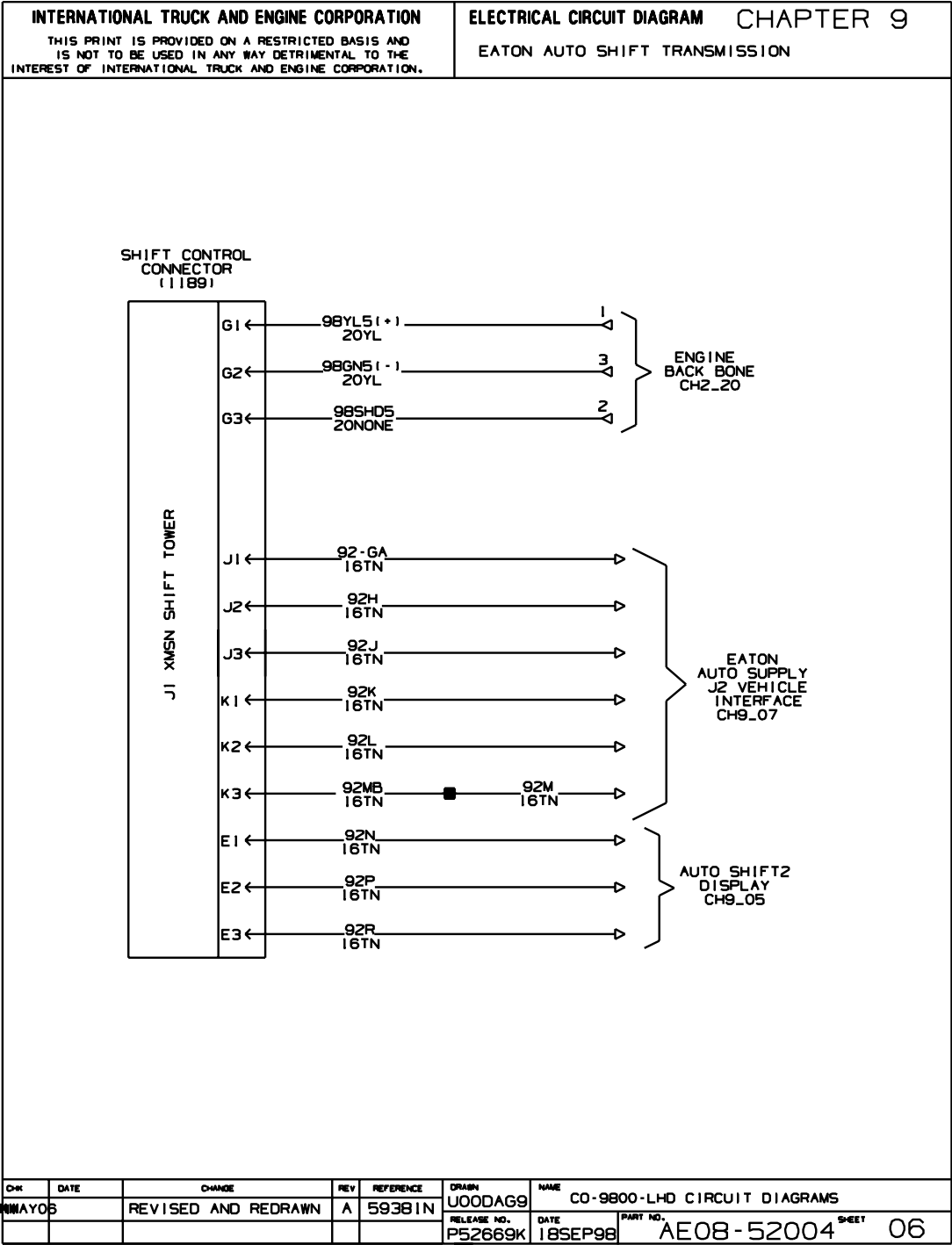


Figure 86 Eaton Auto Shift Transmission

9.7. EATON AUTO SHIFT TRANSMISSION — ECM, P. 7

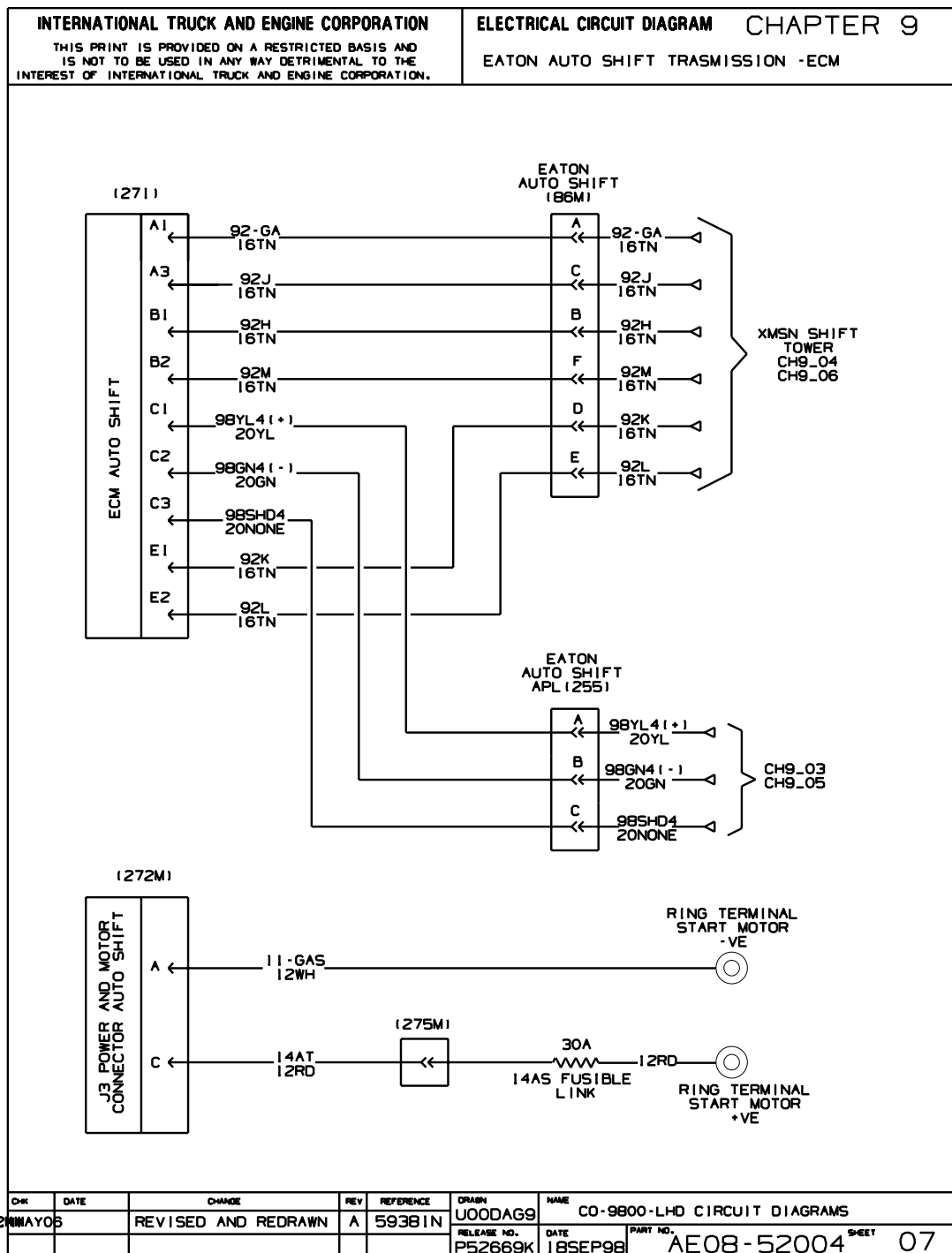


Figure 87 Eaton Auto Shift Transmission — ECM

9.8. WITH ABS CONTROLLER MODULE WITH AUTO TRACTION CONTROL, P. 8

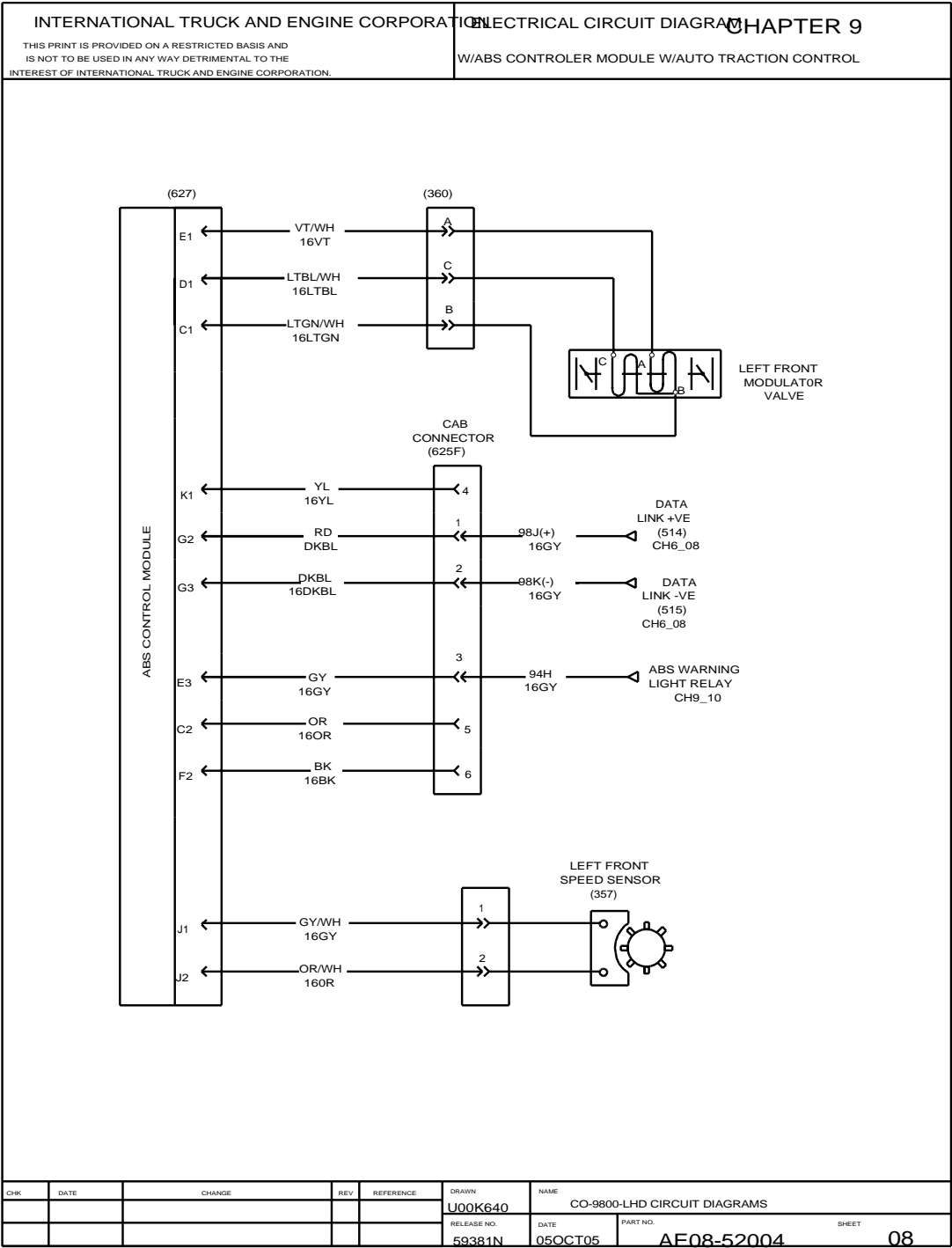


Figure 88 With ABS Controller Module with Auto Traction Control

9.9. ABS CONTROL MODULE, P. 9

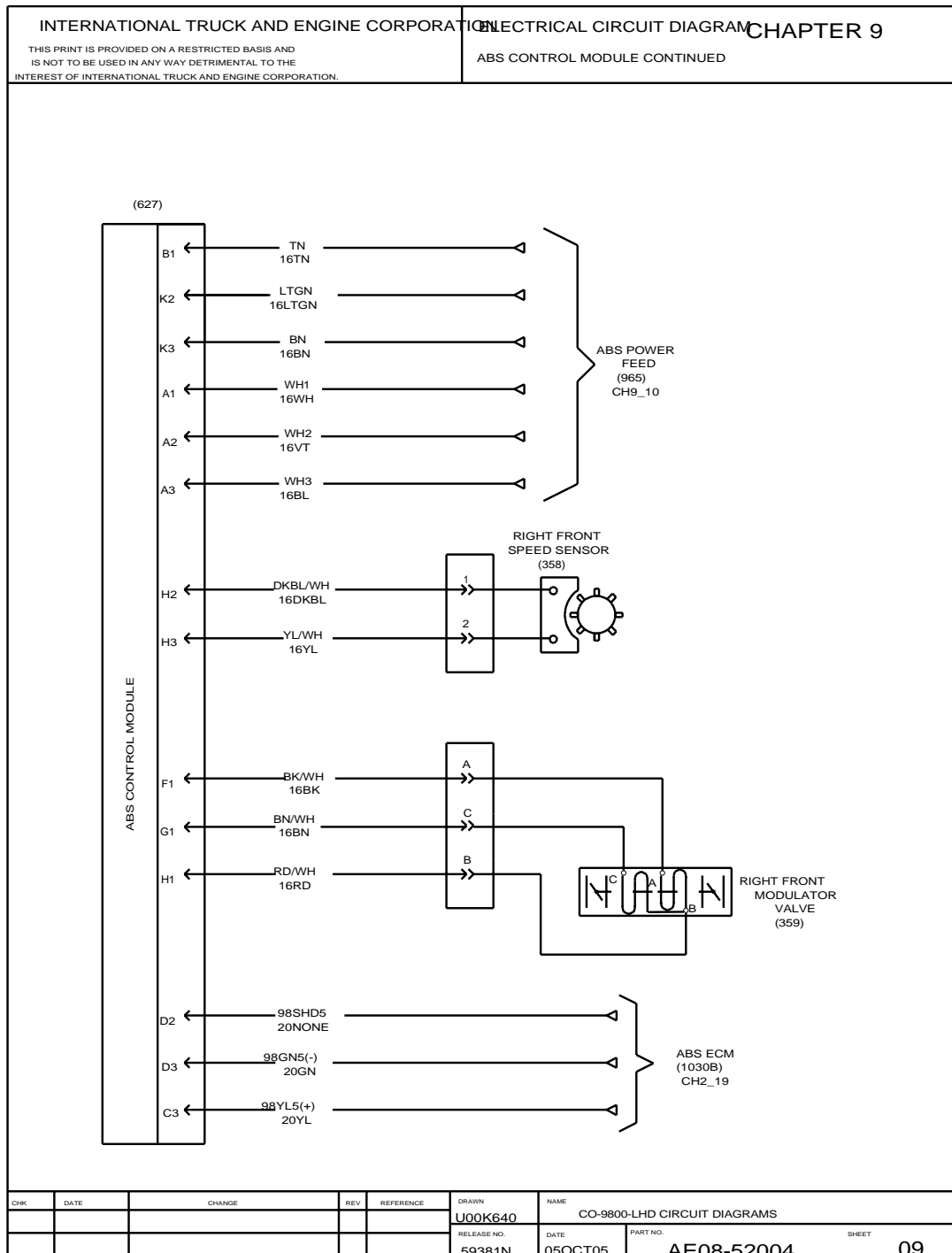


Figure 89 ABS Control Module

9.10. ABS POWER FEED AND WARNING LIGHTS, P. 10

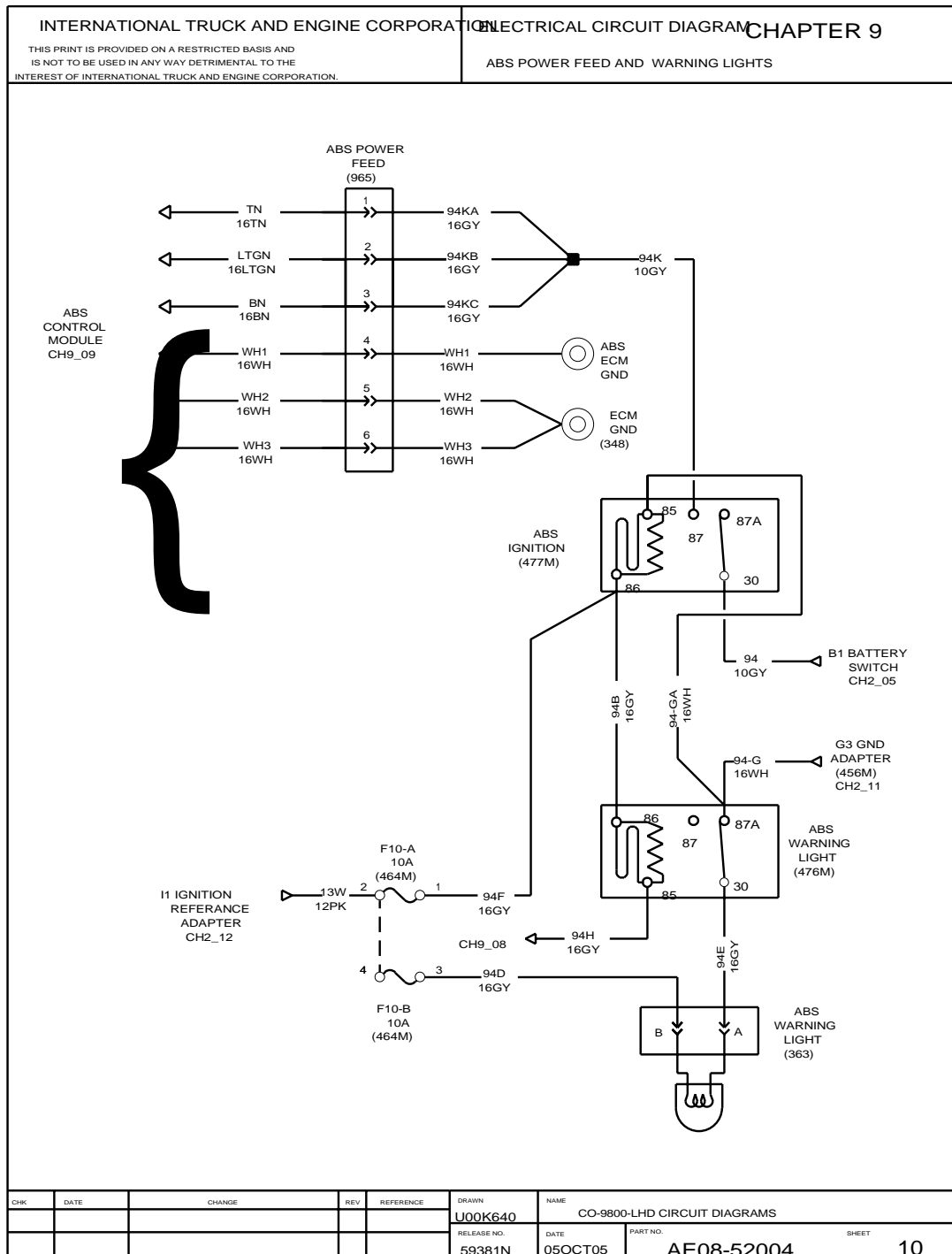


Figure 90 ABS Power Feed and Warning Lights

9.11. TRAILER ABS FEED, P. 11

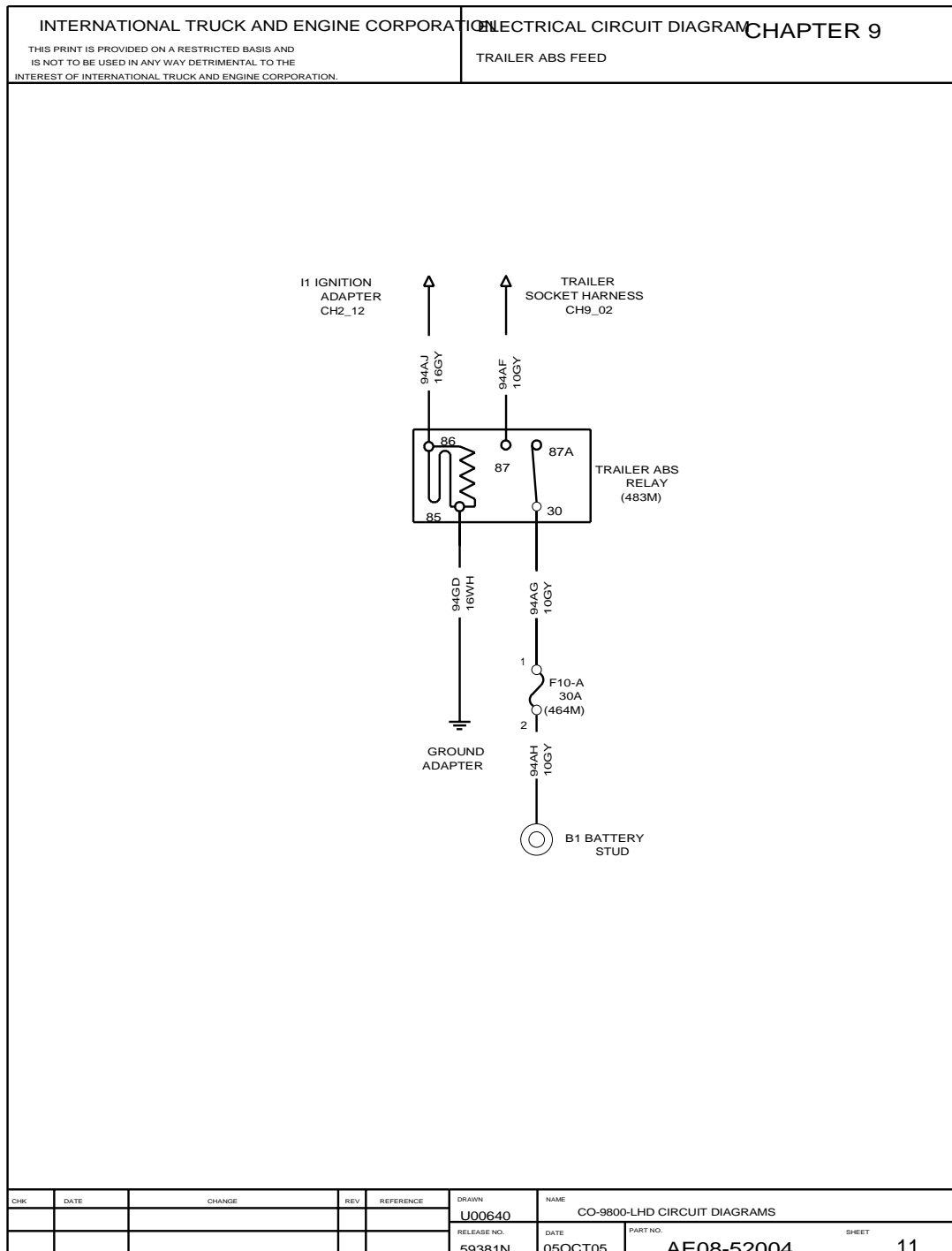
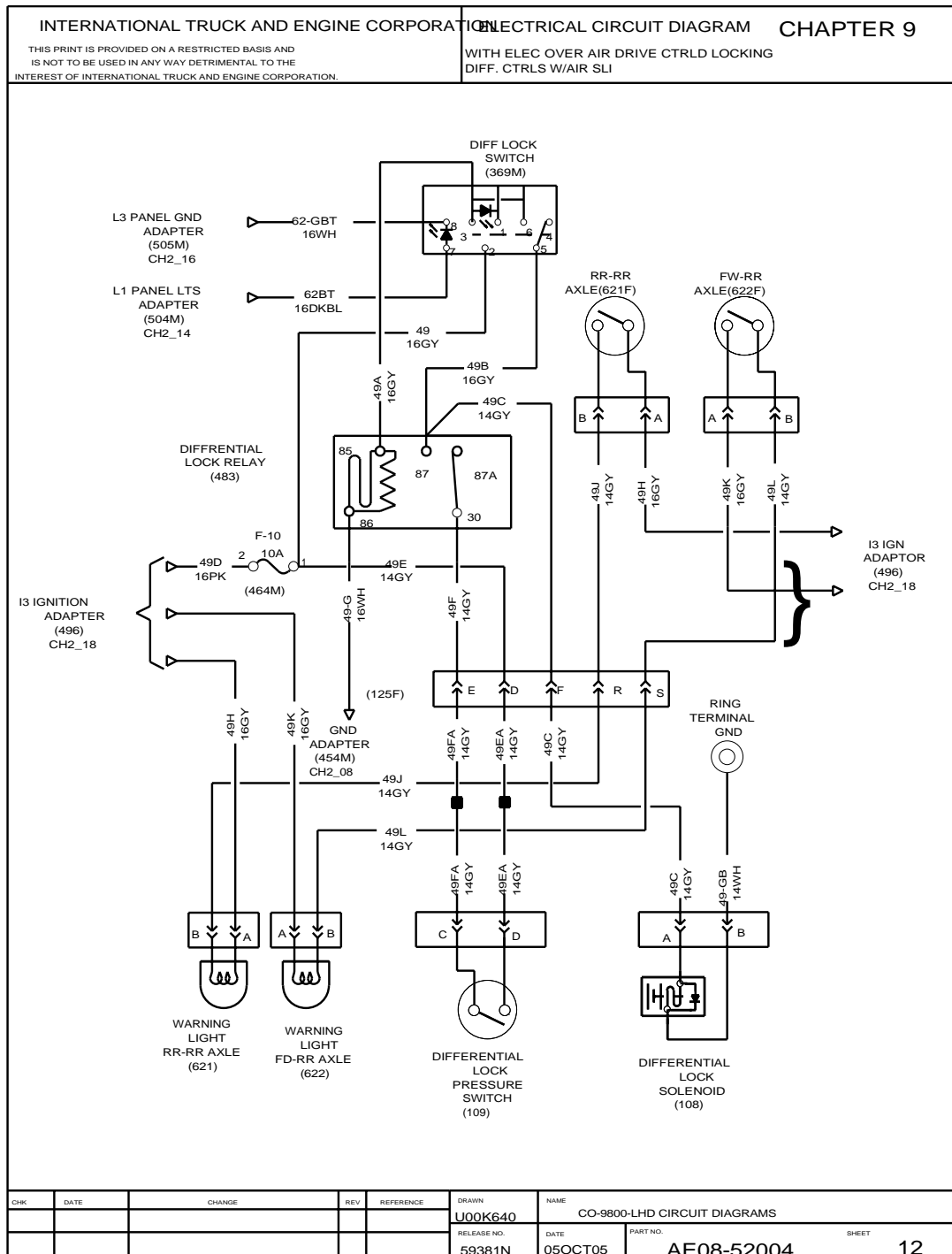


Figure 91 Trailer ABS Feed

9.12. WITH ELEC OVER AIR DRIVE CTRLD LOCKING DIFF CTRLS W/AIR SLI, P. 12



9.13. AIR SUSPENSION WARNING LIGHT, P. 13

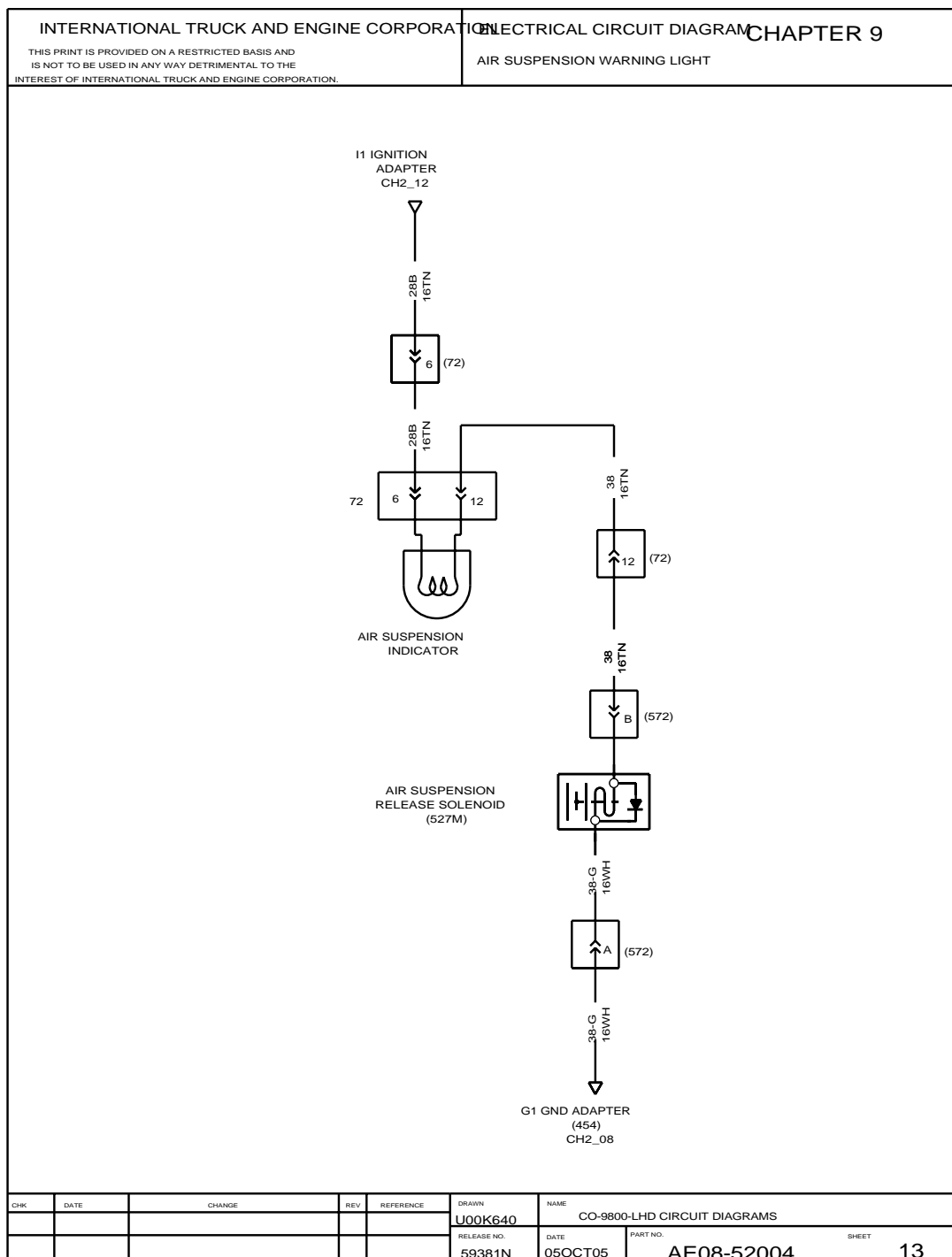


Figure 93 Air Suspension Warning Light

9.14. CHASSIS PASS THROUGH FOR TRAILER CONNECTION, P. 14

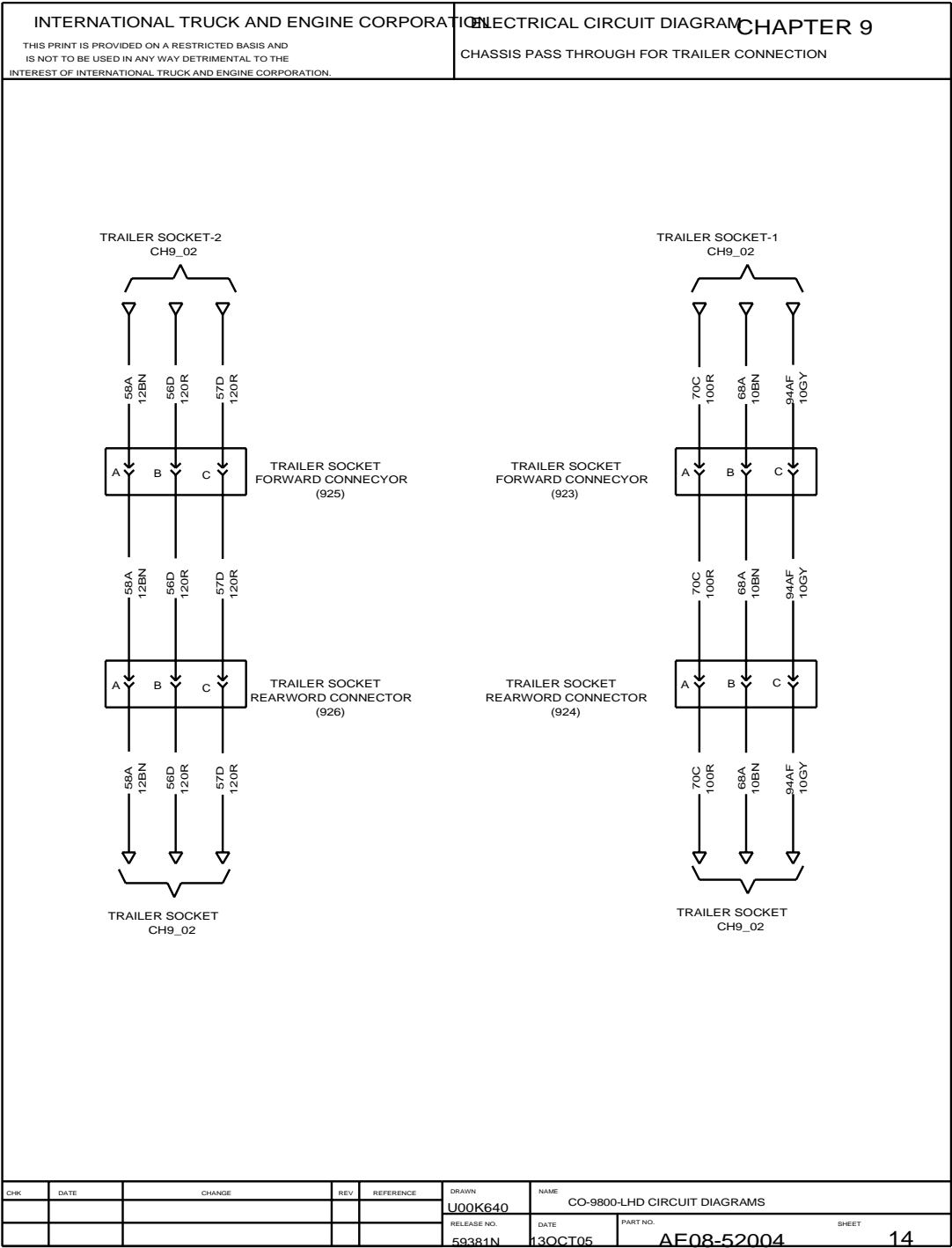


Figure 94 Chassis Pass through for Trailer Connection

9.15. CAB LIFT PUMP WITH ELECTRIC ASSISTANCE PUMP, P. 15

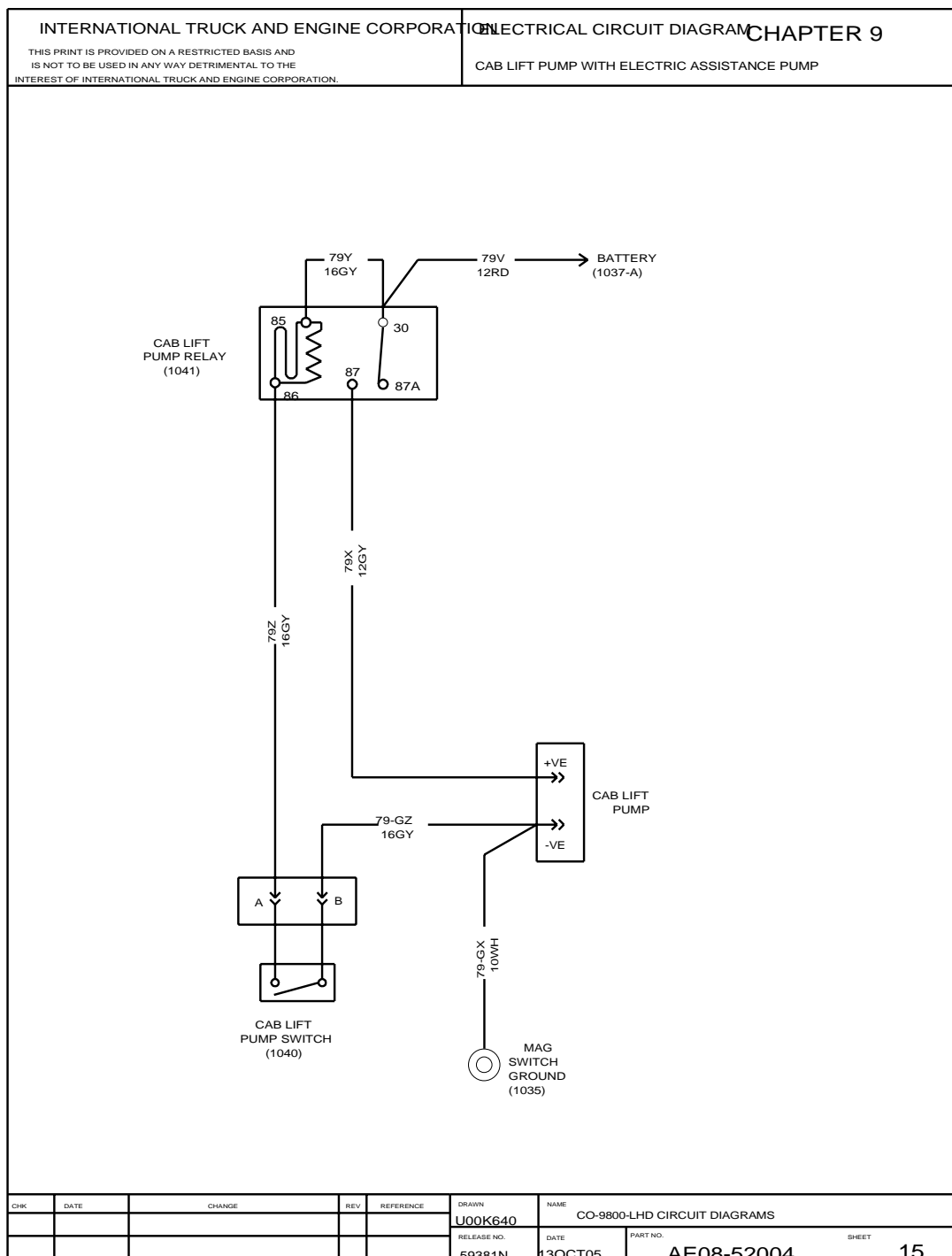


Figure 95 Cab Lift Pump with Electric Assistance Pump

9.16. TRAILER AUXILIARY 12V-24V CONVERTER, P. 16

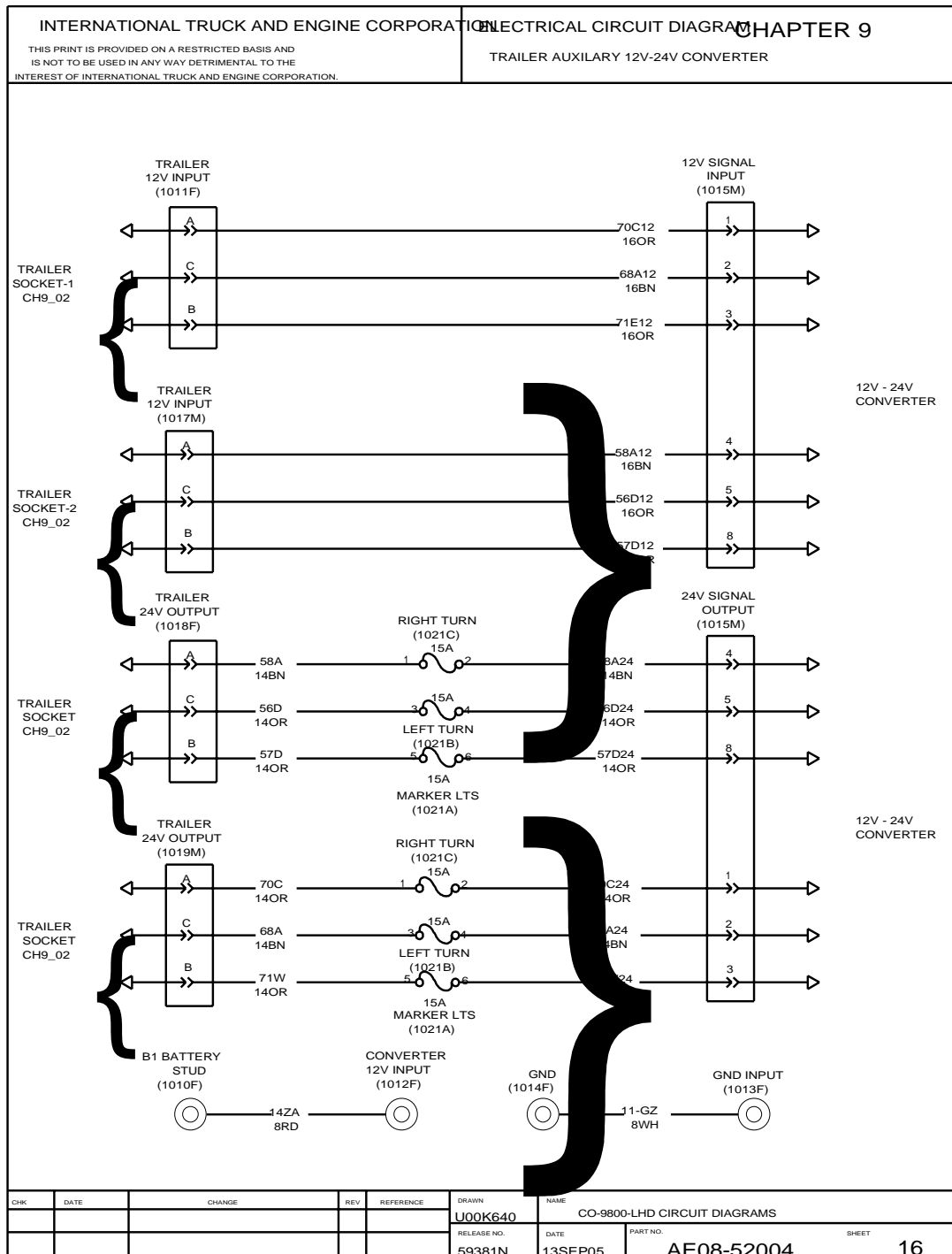


Figure 96 Trailer Auxiliary 12V-24V Converter

10.2. BUNK FLUORESCENT READING LIGHTS AND CIGAR LIGHTER, P. 2

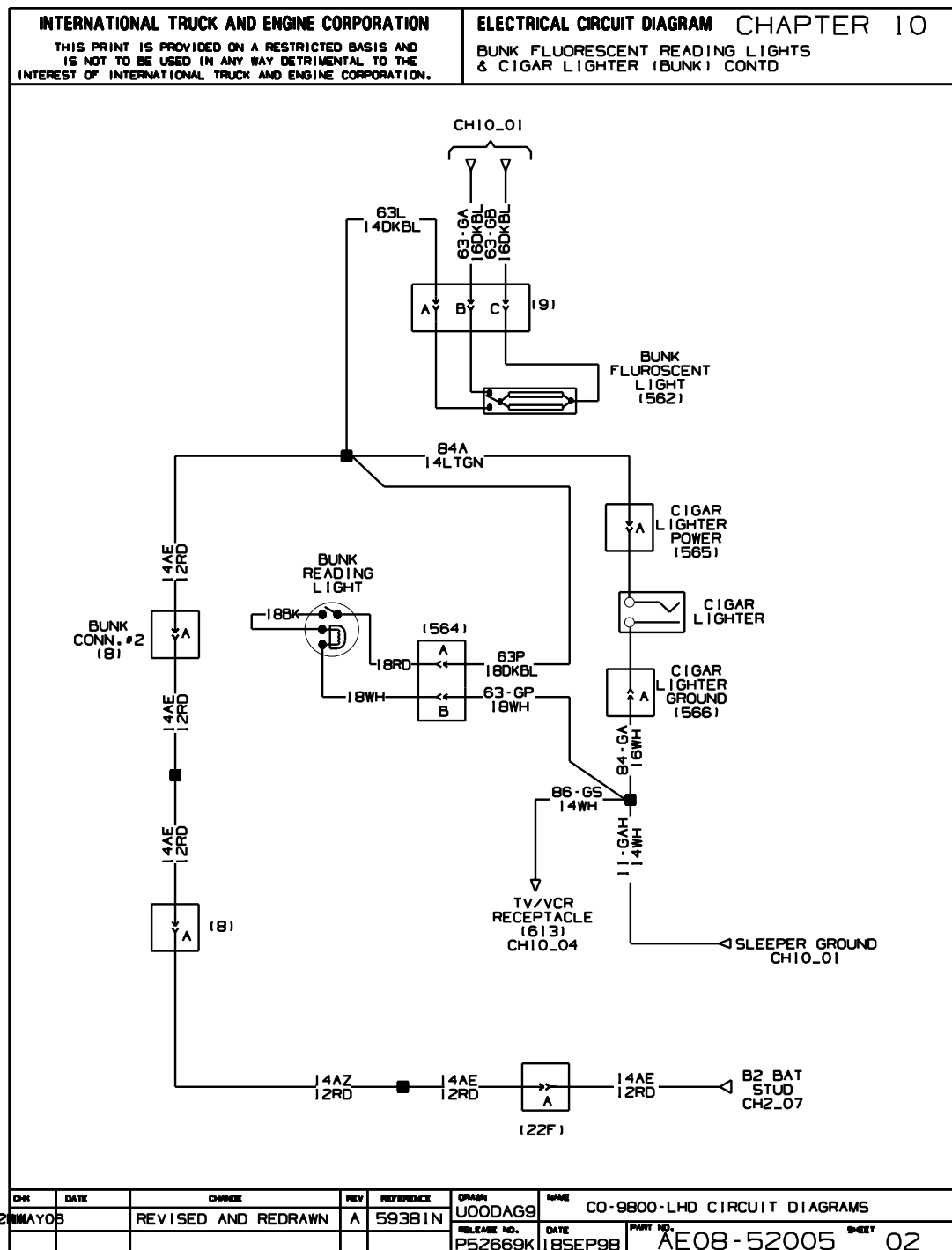


Figure 98 Bunk Fluorescent Reading Lights and Cigar Lighter

10.3. LUGGAGE COMPARTMENT LIGHT — RIGHT AND LEFT, P. 3

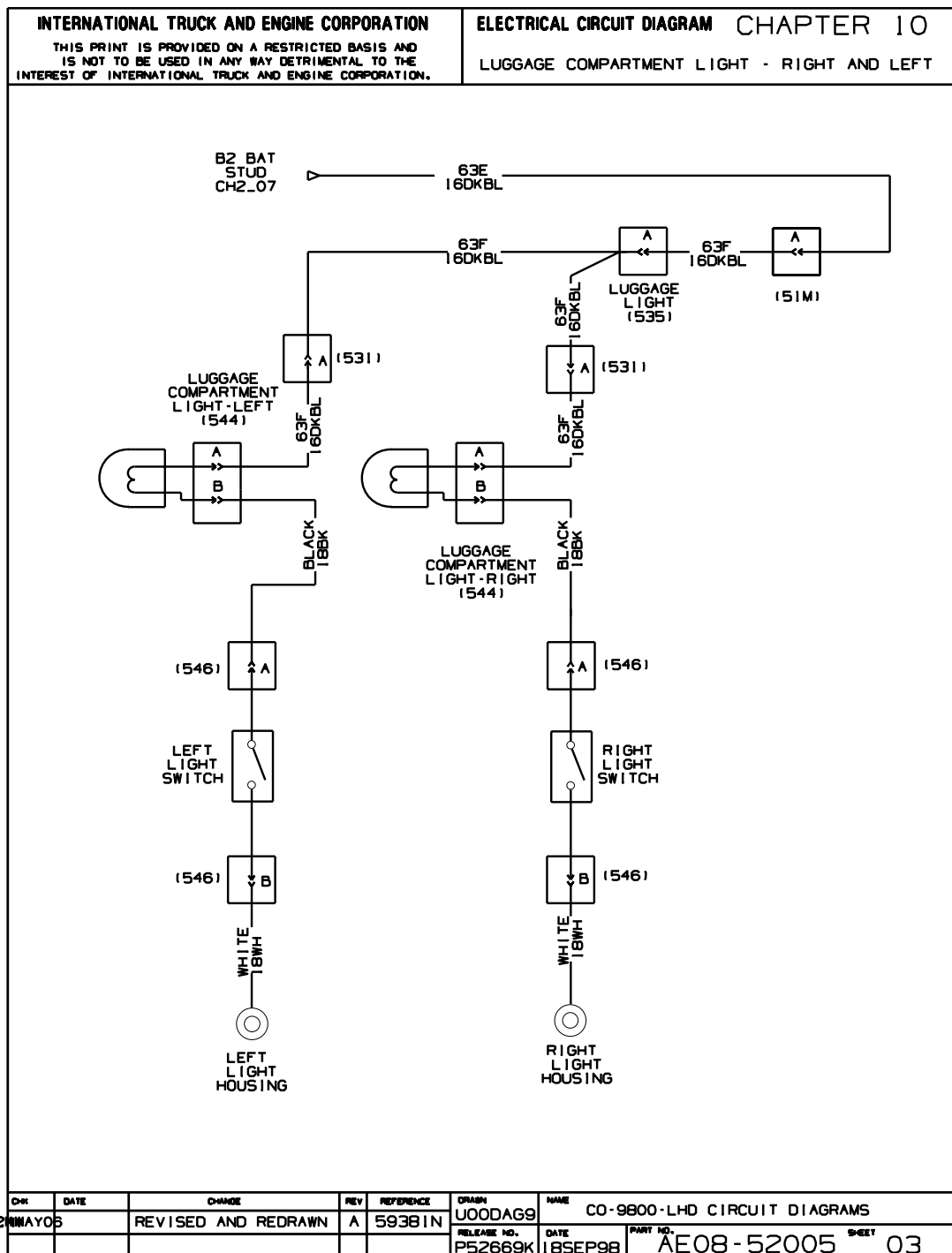


Figure 99 Luggage Compartment Light — Right and Left

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ELECTRICAL CIRCUIT DIAGRAM

CHAPTER 10

BUNK SPEAKER VOLUME CONTROL

RESISTOR
150 OHMS
.5 WATTS
- TYP.

CAPACITOR
10 MFD
25V
- TYP.

VOLUME CONTROL

HEAD SET JACK

OUTSIDE KNOB LEFT (123)

INSIDE KNOB LEFT (122)

RADIO CH8_06

BUNK ROOF (1557)

BUNK ROOF (1558)

REAR BUNK SPEAKER (9)

LEFT FRONT BUNK SPEAKER (13)

Wiring diagram showing electrical connections for Bunk Speaker Volume Control. Components include resistors, capacitors, volume control knobs, head set jack, and speakers. Wires are labeled with alphanumeric codes (e.g., B6CC, B6S, B6H, B6L, B6R, B6F, B6C, B6D, B6A, B6B, B6C, B6D, B6E, B6F, B6G, B6H, B6I, B6J, B6K, B6L, B6M, B6N, B6O, B6P, B6Q, B6R, B6S, B6T, B6U, B6V, B6W, B6X, B6Y, B6Z, B6AA, B6AB, B6AC, B6AD, B6AE, B6AF, B6AG, B6AH, B6AI, B6AJ, B6AK, B6AL, B6AM, B6AN, B6AO, B6AP, B6AQ, B6AR, B6AS, B6AT, B6AU, B6AV, B6AW, B6AX, B6AY, B6AZ, B6BA, B6BB, B6BC, B6BD, B6BE, B6BF, B6BG, B6BH, B6BI, B6BJ, B6BK, B6BL, B6BM, B6BN, B6BO, B6BP, B6BQ, B6BR, B6BS, B6BT, B6BU, B6BV, B6BW, B6BX, B6BY, B6BZ, B6CA, B6CB, B6CC, B6CD, B6CE, B6CF, B6CG, B6CH, B6CI, B6CJ, B6CK, B6CL, B6CM, B6CN, B6CO, B6CP, B6CQ, B6CR, B6CS, B6CT, B6CU, B6CV, B6CW, B6CX, B6CY, B6CZ, B6DA, B6DB, B6DC, B6DD, B6DE, B6DF, B6DG, B6DH, B6DI, B6DJ, B6DK, B6DL, B6DM, B6DN, B6DO, B6DP, B6DQ, B6DR, B6DS, B6DT, B6DU, B6DV, B6DW, B6DX, B6DY, B6DZ, B6EA, B6EB, B6EC, B6ED, B6EE, B6EF, B6EG, B6EH, B6EI, B6EJ, B6EK, B6EL, B6EM, B6EN, B6EO, B6EP, B6EQ, B6ER, B6ES, B6ET, B6EU, B6EV, B6EW, B6EX, B6EY, B6EZ, B6FA, B6FB, B6FC, B6FD, B6FE, B6FF, B6FG, B6FH, B6FI, B6FJ, B6FK, B6FL, B6FM, B6FN, B6FO, B6FP, B6FQ, B6FR, B6FS, B6FT, B6FU, B6FV, B6FW, B6FX, B6FY, B6FZ, B6GA, B6GB, B6GC, B6GD, B6GE, B6GF, B6GG, B6GH, B6GI, B6GJ, B6GK, B6GL, B6GM, B6GN, B6GO, B6GP, B6GQ, B6GR, B6GS, B6GT, B6GU, B6GV, B6GW, B6GX, B6GY, B6GZ, B6HA, B6HB, B6HC, B6HD, B6HE, B6HF, B6HG, B6HH, B6HI, B6HJ, B6HK, B6HL, B6HM, B6HN, B6HO, B6HP, B6HQ, B6HR, B6HS, B6HT, B6HU, B6HV, B6HW, B6HX, B6HY, B6HZ, B6IA, B6IB, B6IC, B6ID, B6IE, B6IF, B6IG, B6IH, B6IJ, B6IK, B6IL, B6IM, B6IN, B6IO, B6IP, B6IQ, B6IR, B6IS, B6IT, B6IU, B6IV, B6IW, B6IX, B6IY, B6IZ, B6JA, B6JB, B6JC, B6JD, B6JE, B6JF, B6JG, B6JH, B6JI, B6JJ, B6JK, B6JL, B6JM, B6JN, B6JO, B6JP, B6JQ, B6JR, B6JS, B6JT, B6JU, B6JV, B6JW, B6JX, B6JY, B6JZ, B6KA, B6KB, B6KC, B6KD, B6KE, B6KF, B6KG, B6KH, B6KI, B6KJ, B6KK, B6KL, B6KM, B6KN, B6KO, B6KP, B6KQ, B6KR, B6KS, B6KT, B6KU, B6KV, B6KW, B6KX, B6KY, B6KZ, B6LA, B6LB, B6LC, B6LD, B6LE, B6LF, B6LG, B6LH, B6LI, B6LJ, B6LK, B6LL, B6LM, B6LN, B6LO, B6LP, B6LQ, B6LR, B6LS, B6LT, B6LU, B6LV, B6LW, B6LX, B6LY, B6LZ, B6MA, B6MB, B6MC, B6MD, B6ME, B6MF, B6MG, B6MH, B6MI, B6MJ, B6MK, B6ML, B6MM, B6MN, B6MO, B6MP, B6MQ, B6MR, B6MS, B6MT, B6MU, B6MV, B6MW, B6MX, B6MY, B6MZ, B6NA, B6NB, B6NC, B6ND, B6NE, B6NF, B6NG, B6NH, B6NI, B6NJ, B6NK, B6NL, B6NM, B6NN, B6NO, B6NP, B6NQ, B6NR, B6NS, B6NT, B6NU, B6NV, B6NW, B6NX, B6NY, B6NZ, B6OA, B6OB, B6OC, B6OD, B6OE, B6OF, B6OG, B6OH, B6OI, B6OJ, B6OK, B6OL, B6OM, B6ON, B6OO, B6OP, B6OQ, B6OR, B6OS, B6OT, B6OU, B6OV, B6OW, B6OX, B6OY, B6OZ, B6PA, B6PB, B6PC, B6PD, B6PE, B6PF, B6PG, B6PH, B6PI, B6PJ, B6PK, B6PL, B6PM, B6PN, B6PO, B6PP, B6PQ, B6PR, B6PS, B6PT, B6PU, B6PV, B6PW, B6PX, B6PY, B6PZ, B6QA, B6QB, B6QC, B6QD, B6QE, B6QF, B6QG, B6QH, B6QI, B6QJ, B6QK, B6QL, B6QM, B6QN, B6QO, B6QP, B6QQ, B6QR, B6QS, B6QT, B6QU, B6QV, B6QW, B6QX, B6QY, B6QZ, B6RA, B6RB, B6RC, B6RD, B6RE, B6RF, B6RG, B6RH, B6RI, B6RJ, B6RK, B6RL, B6RM, B6RN, B6RO, B6RP, B6RQ, B6RR, B6RS, B6RT, B6RU, B6RV, B6RW, B6RX, B6RY, B6RZ, B6SA, B6SB, B6SC, B6SD, B6SE, B6SF, B6SG, B6SH, B6SI, B6SJ, B6SK, B6SL, B6SM, B6SN, B6SO, B6SP, B6SQ, B6SR, B6SS, B6ST, B6SU, B6SV, B6SW, B6SX, B6SY, B6SZ, B6TA, B6TB, B6TC, B6TD, B6TE, B6TF, B6TG, B6TH, B6TI, B6TJ, B6TK, B6TL, B6TM, B6TN, B6TO, B6TP, B6TQ, B6TR, B6TS, B6TT, B6TU, B6TV, B6TW, B6TX, B6TY, B6TZ, B6UA, B6UB, B6UC, B6UD, B6UE, B6UF, B6UG, B6UH, B6UI, B6UJ, B6UK, B6UL, B6UM, B6UN, B6UO, B6UP, B6UQ, B6UR, B6US, B6UT, B6UU, B6UV, B6UW, B6UX, B6UY, B6UZ, B6VA, B6VB, B6VC, B6VD, B6VE, B6VF, B6VG, B6VH, B6VI, B6VJ, B6VK, B6VL, B6VM, B6VN, B6VO, B6VP, B6VQ, B6VR, B6VS, B6VT, B6VU, B6VV, B6VW, B6VX, B6VY, B6VZ, B6WA, B6WB, B6WC, B6WD, B6WE, B6WF, B6WG, B6WH, B6WI, B6WJ, B6WK, B6WL, B6WM, B6WN, B6WO, B6WP, B6WQ, B6WR, B6WS, B6WT, B6WU, B6WV, B6WW, B6WX, B6WY, B6WZ, B6XA, B6XB, B6XC, B6XD, B6XE, B6XF, B6XG, B6XH, B6XI, B6XJ, B6XK, B6XL, B6XM, B6XN, B6XO, B6XP, B6XQ, B6XR, B6XS, B6XT, B6XU, B6XV, B6XW, B6XX, B6XY, B6XZ, B6YA, B6YB, B6YC, B6YD, B6YE, B6YF, B6YG, B6YH, B6YI, B6YJ, B6YK, B6YL, B6YM, B6YN, B6YO, B6YP, B6YQ, B6YR, B6YS, B6YT, B6YU, B6YV, B6YW, B6YX, B6YY, B6YZ, B6ZA, B6ZB, B6ZC, B6ZD, B6ZE, B6ZF, B6ZG, B6ZH, B6ZI, B6ZJ, B6ZK, B6ZL, B6ZM, B6ZN, B6ZO, B6ZP, B6ZQ, B6ZR, B6ZS, B6ZT, B6ZU, B6ZV, B6ZW, B6ZX, B6ZY, B6ZZ).

DATE	CHANGE	REV	REFERENCE	GRAPH	NAME
21MAY05	REVISED AND REDRAWN	A	59381N	U00DAG9	CO-9800-LHD CIRCUIT DIAGRAMS
				RELEASE NO. P52669K	DATE 18SEP98
				PART NO. AE08-52005	05

Figure 101 Bunk Speaker Volume Control

11. LIGHT SYSTEMS (LHD — CHAPTER 11)

11.1. BACK-UP LIGHTS, P. 1

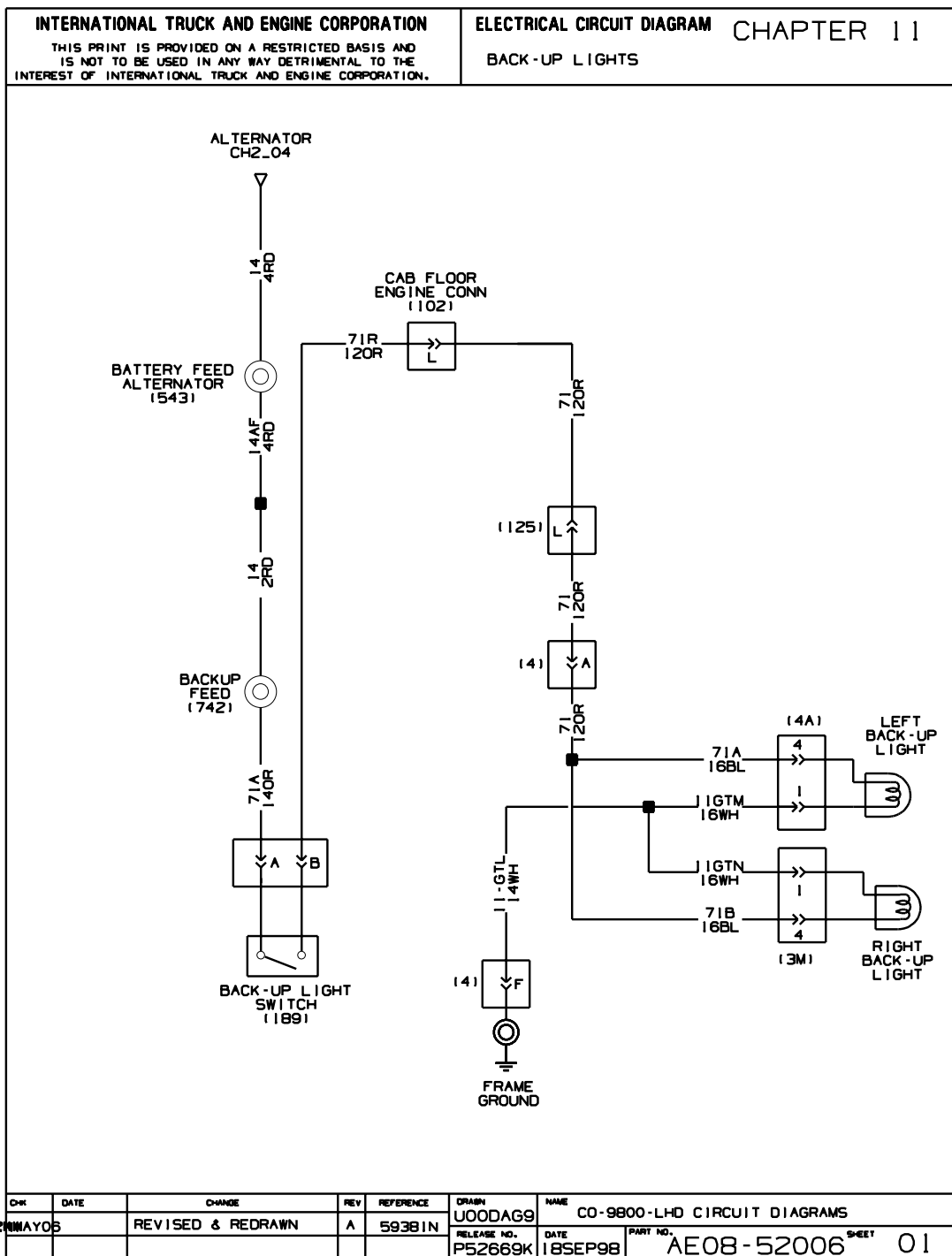


Figure 102 Back-Up Lights

11.2. CAB AND TRAILER LIGHTS SWITCH AND RELAYS WIRING, P. 2

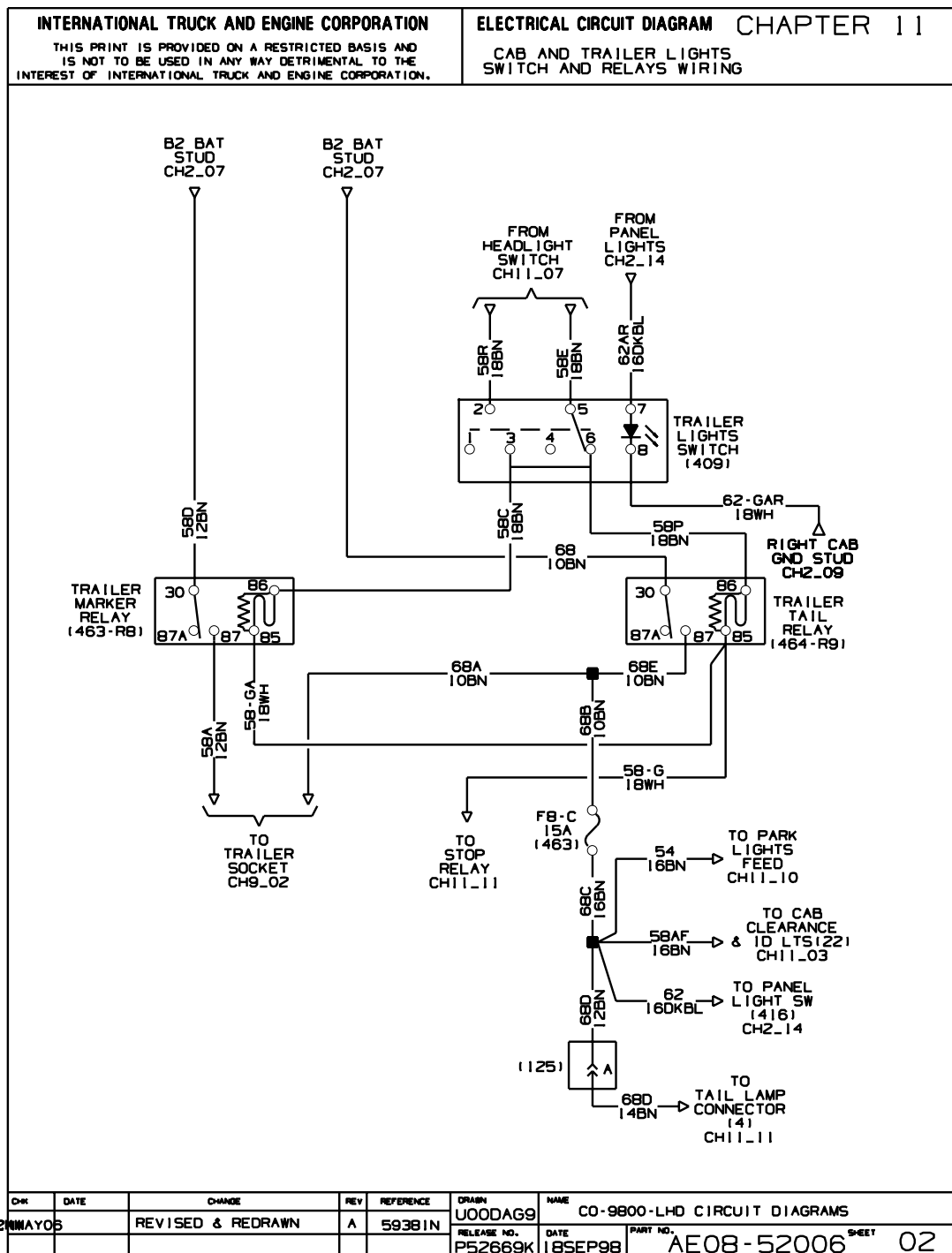


Figure 103 Cab and Trailer Lights Switch and Relays Wiring

11.3. CAB CLEARANCE AND IDENTIFICATION LIGHTS FLAT ROOF, P. 3

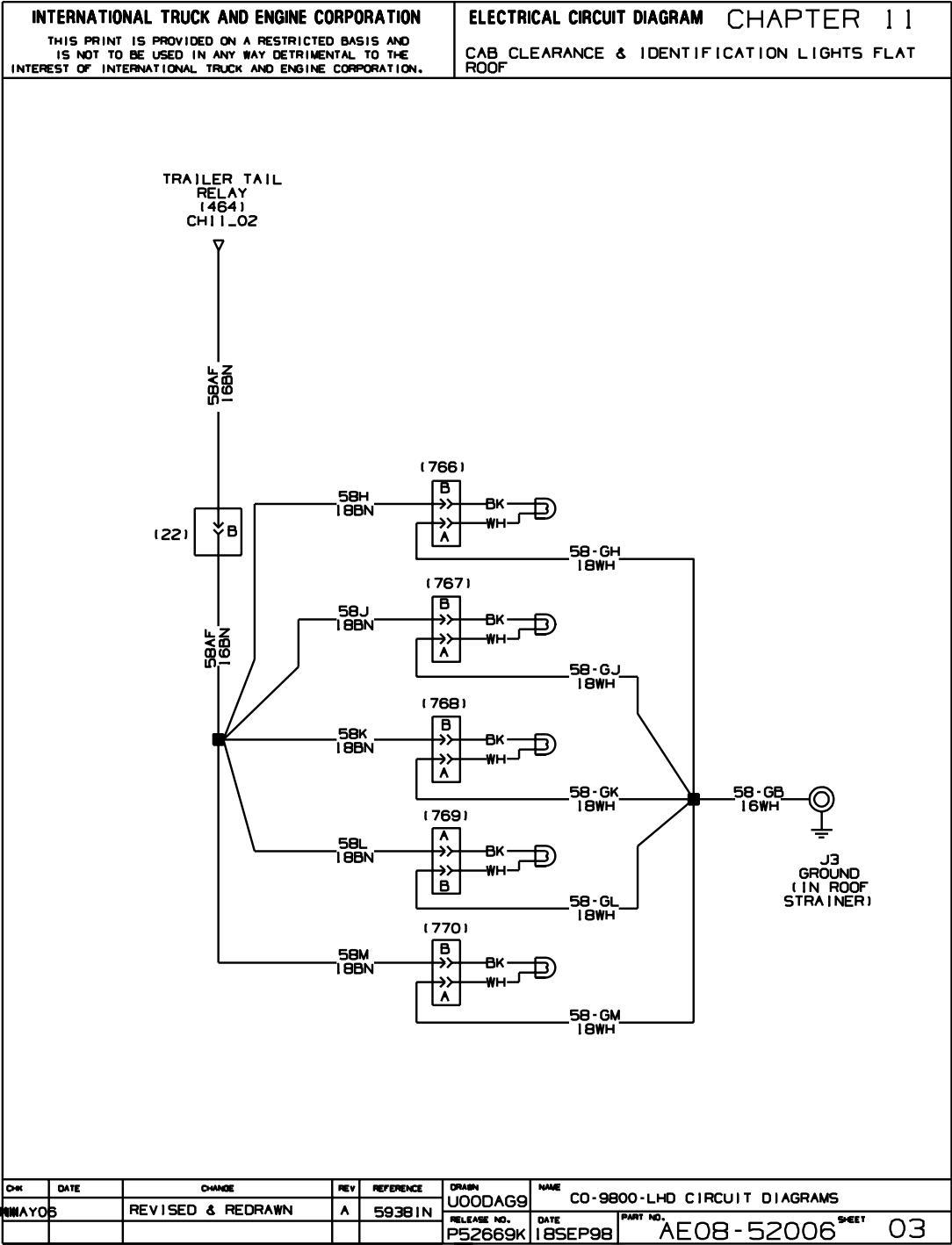


Figure 104 Cab Clearance and Identification Lights Flat Roof

11.4. CAB DOME, READING AND COURTESY LIGHTS AND SWITCHES, P. 4

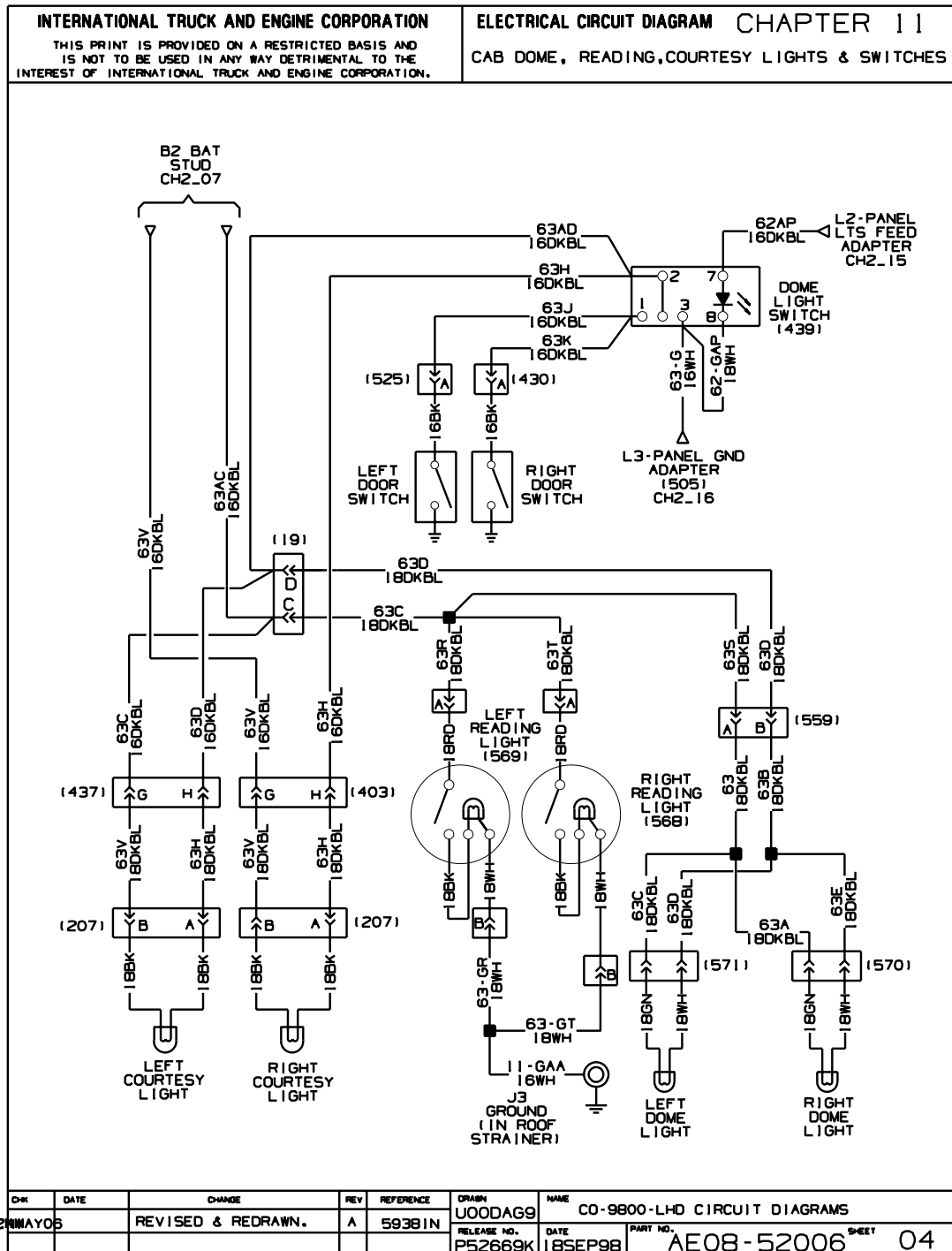


Figure 105 Cab Dome, Reading and Courtesy Lights and Switches

11.5. DRIVING LIGHT, P. 5

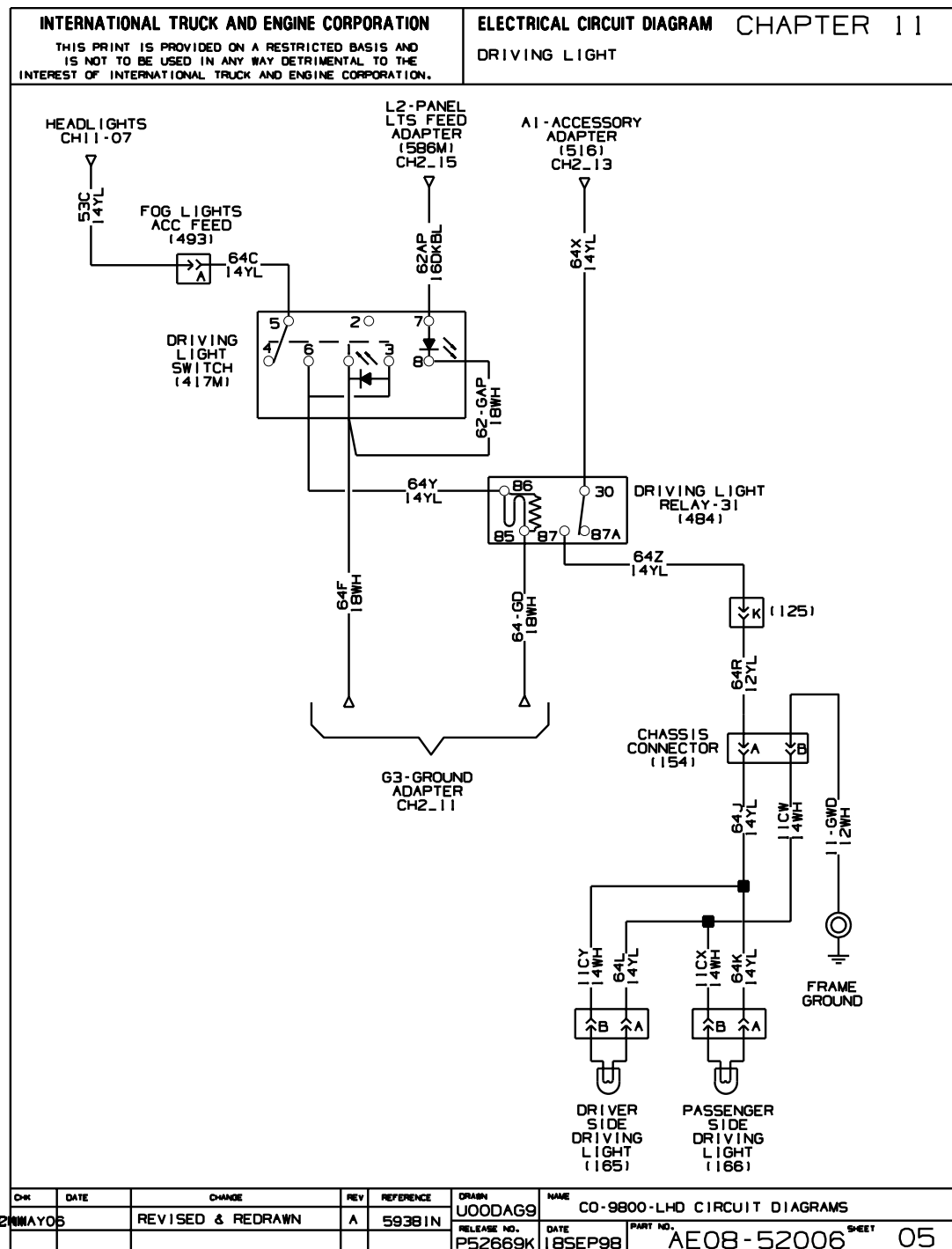


Figure 106 Driving Light

11.6. FOG LIGHT, P. 6

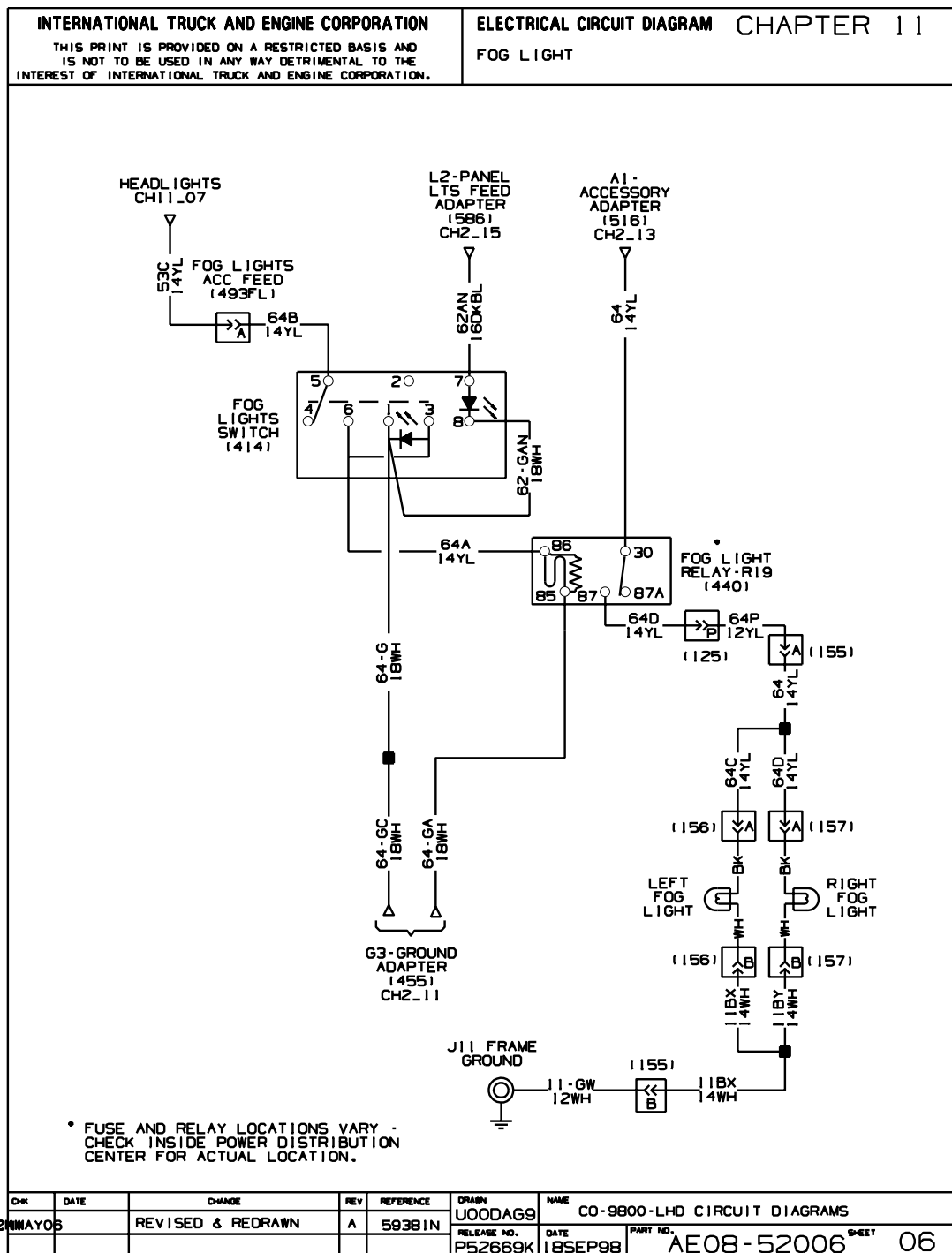


Figure 107 Fog Light

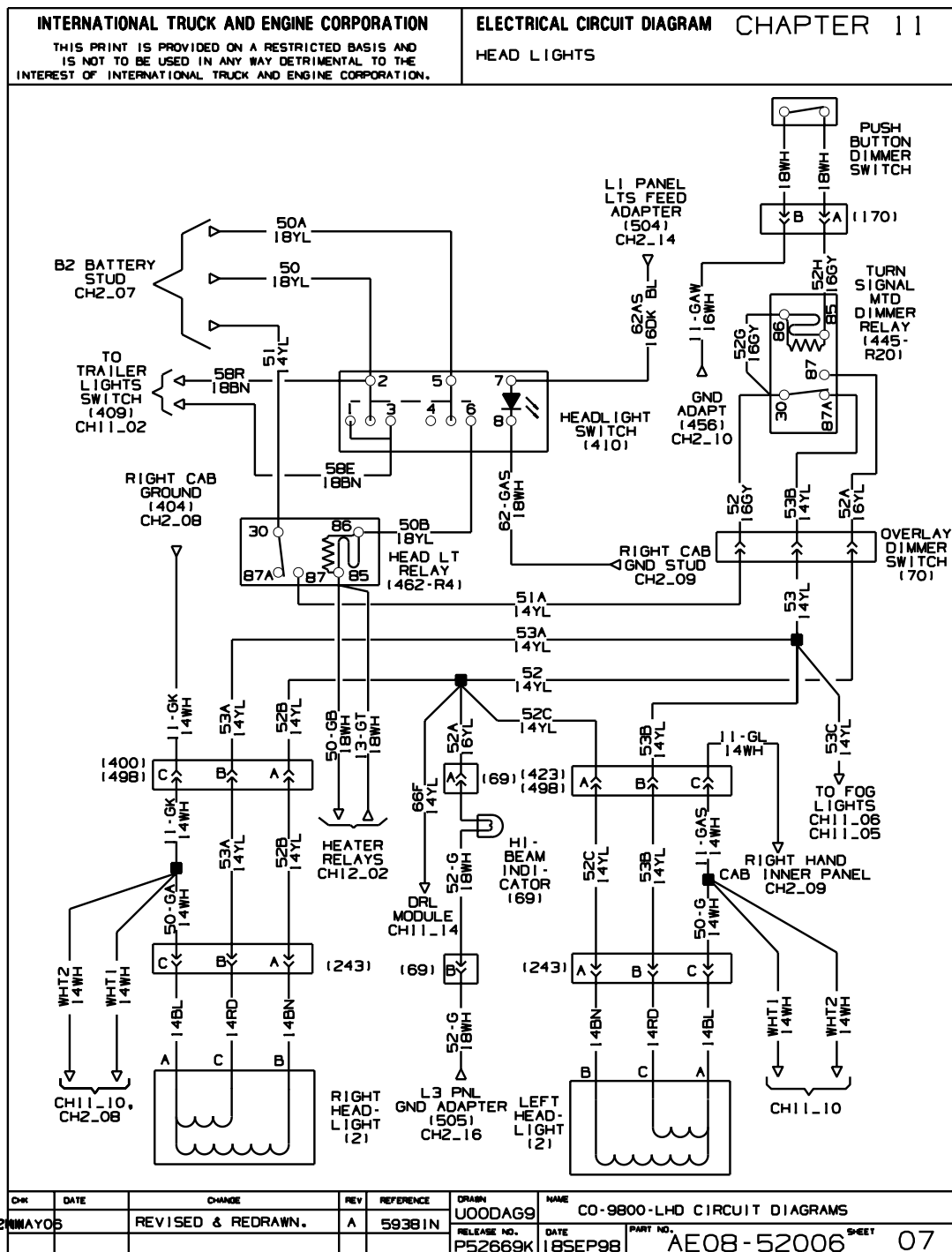


Figure 108 HeadLights

11.8. PANEL LIGHTS, P. 8

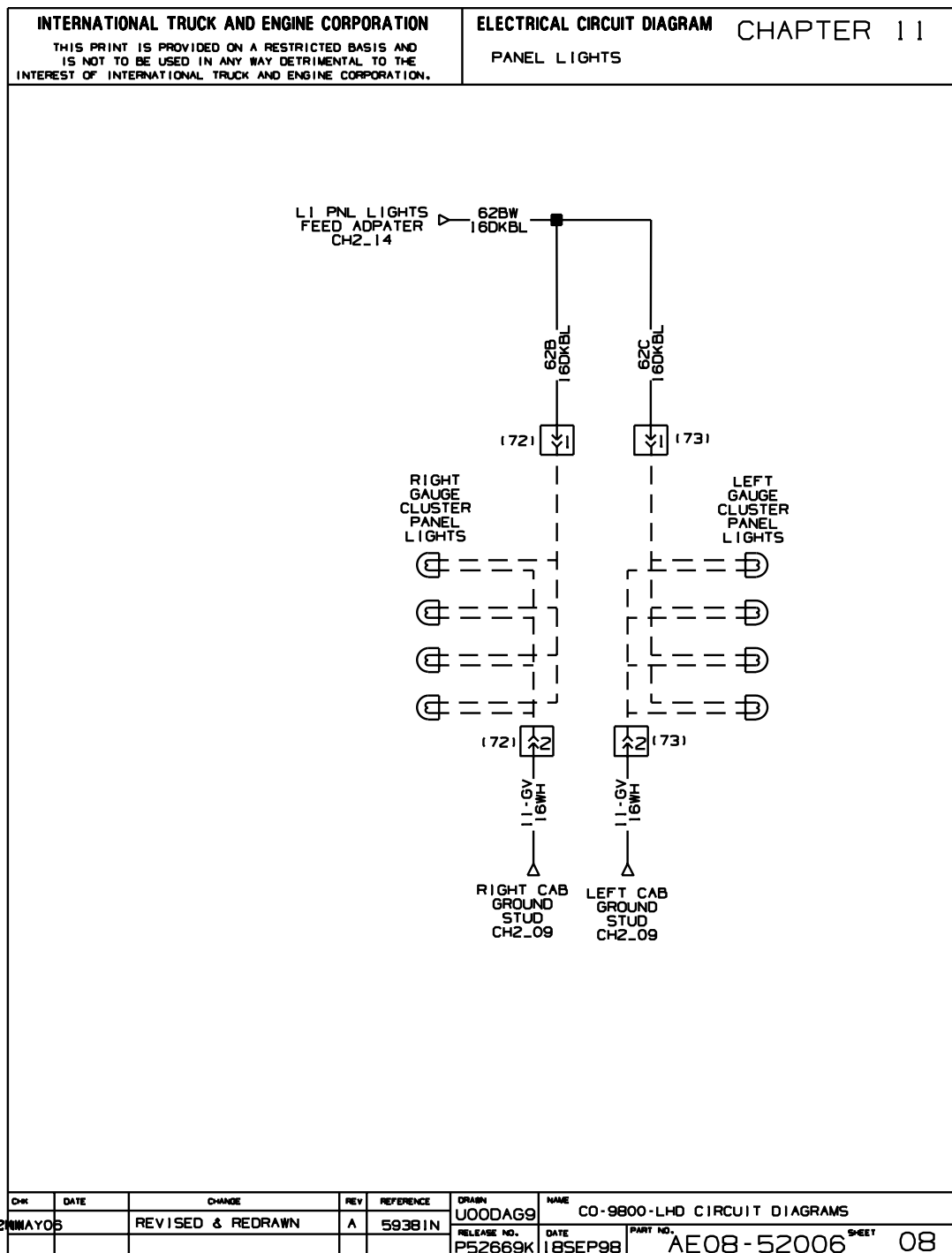


Figure 109 Panel Lights

11.9. PANEL LIGHTS, P. 9

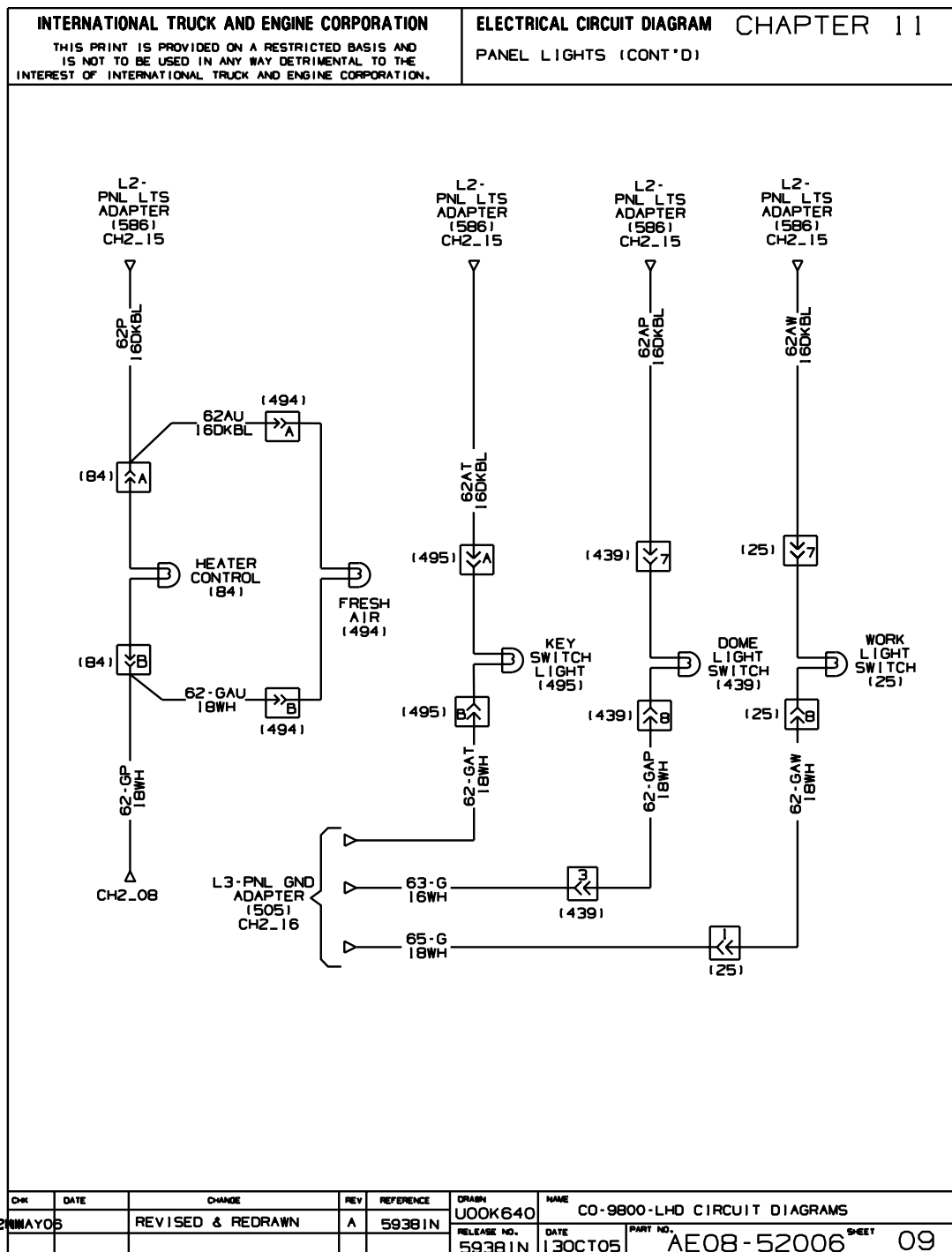


Figure 110 Panel Lights

11.10. FRONT TURN-PARK-MARKER AND SIDE TURN-MARKER LIGHTS, P. 10

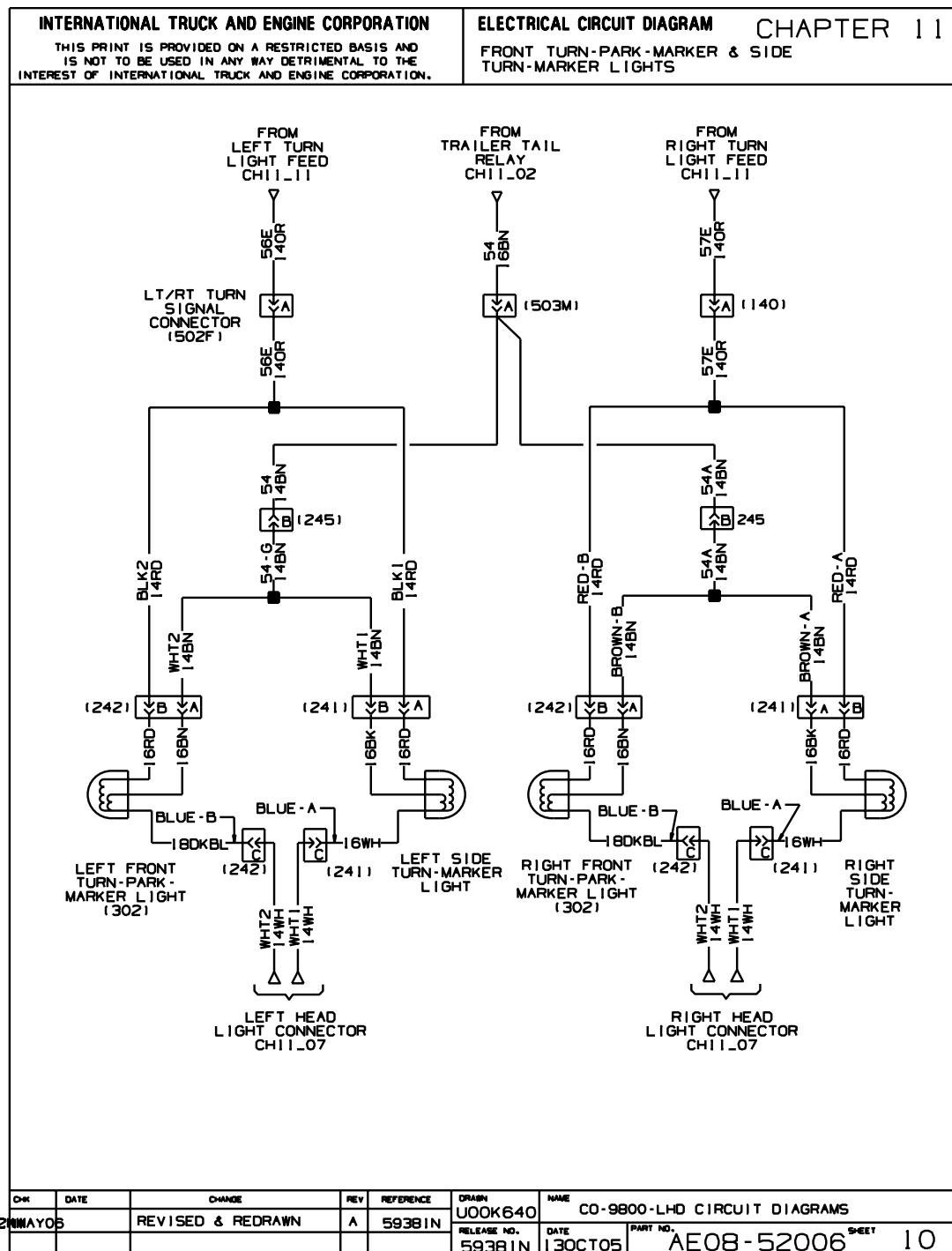


Figure 111 Front Turn-Park-Marker and Side Turn-Marker Lights

11.11. STOP, TAIL TURN AND HAZARD SIGNAL LIGHTS, P. 11

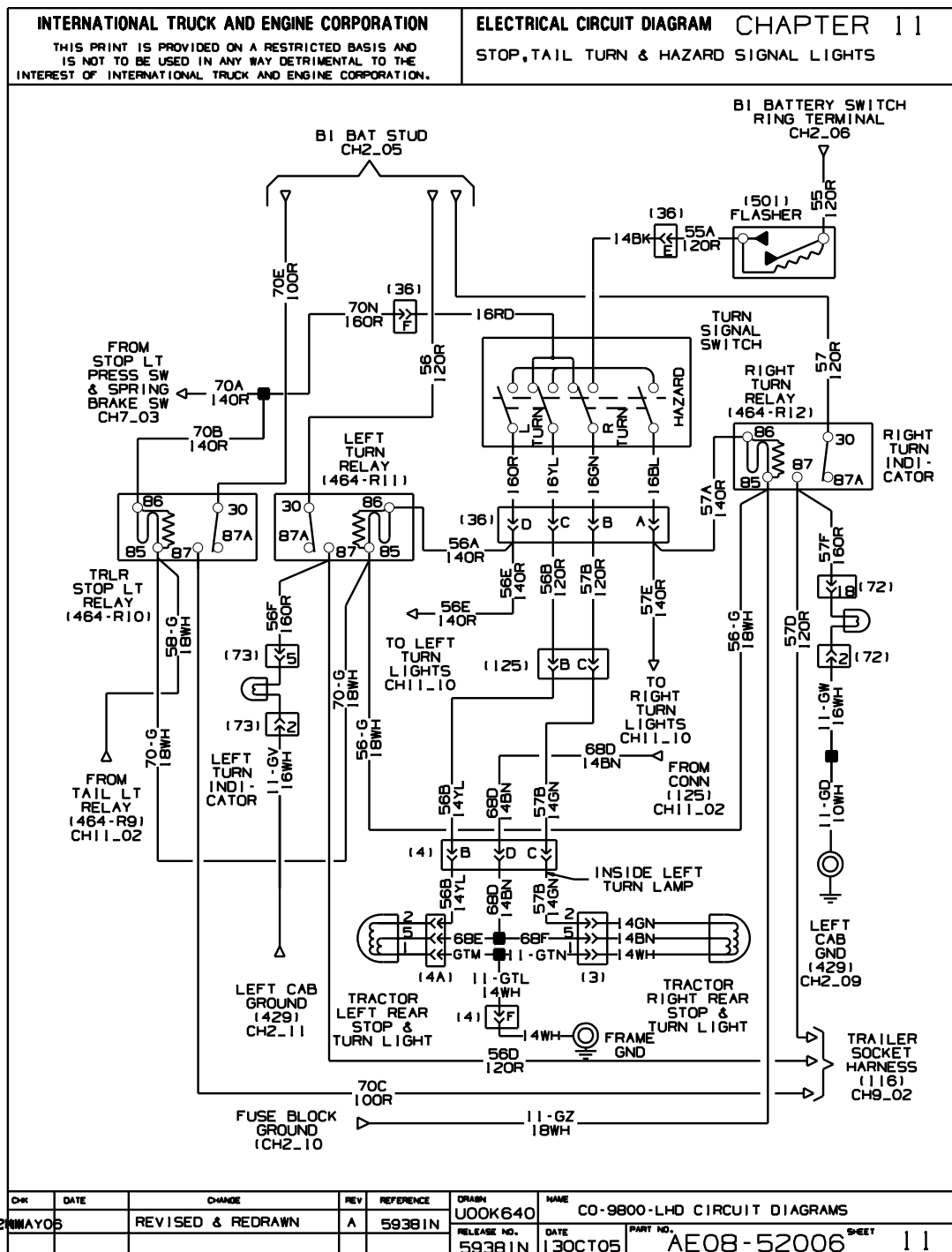


Figure 112 Stop, Tail Turn and Hazard Signal Lights

11.12. TRAILER WORK (HOOK-UP) LIGHT BACK OF CAB MOUNTED, P. 12

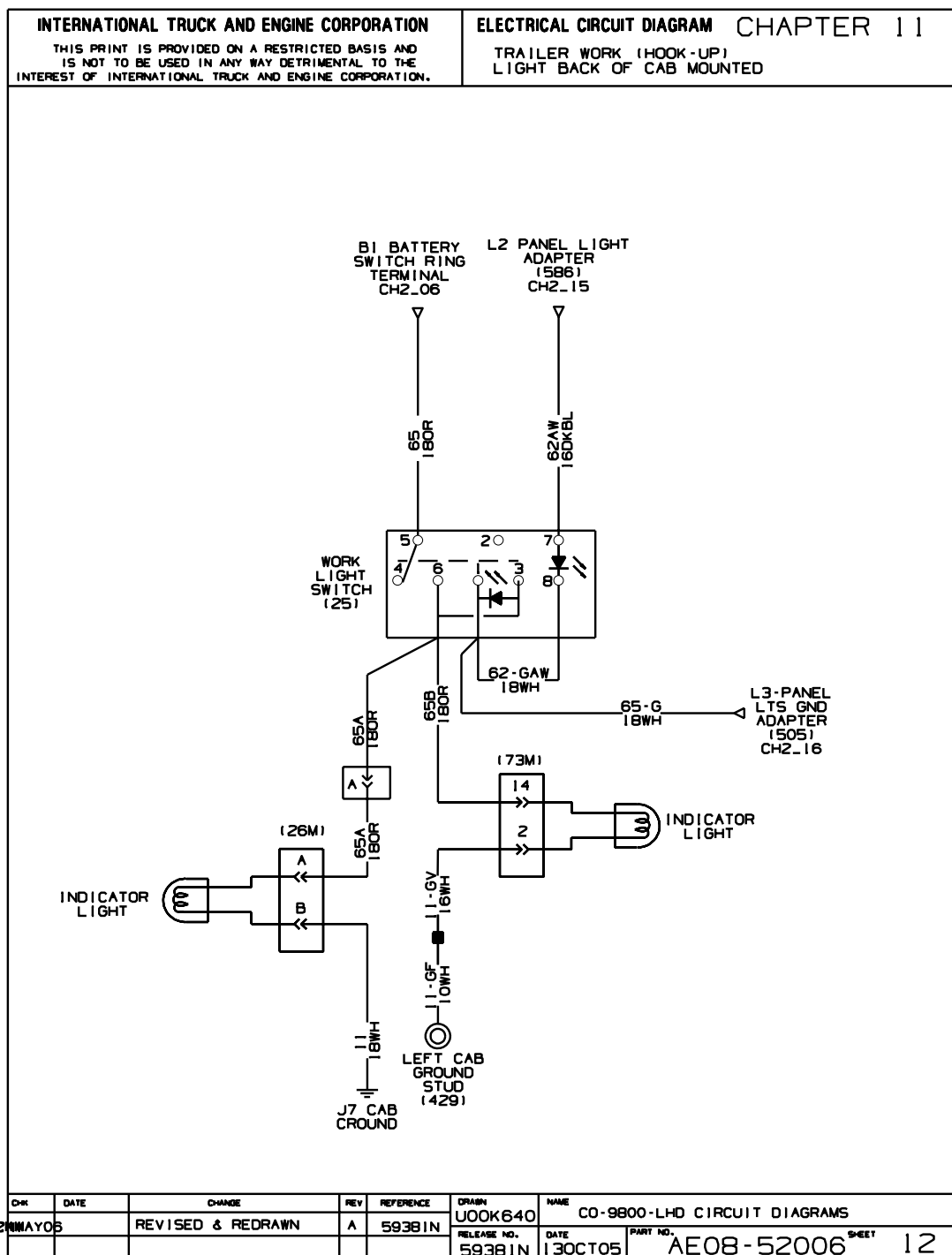


Figure 113 Trailer Work (Hook-Up) Light Back of Cab Mounted

11.13. TRAILER AUXILIARY LIGHT, P. 13

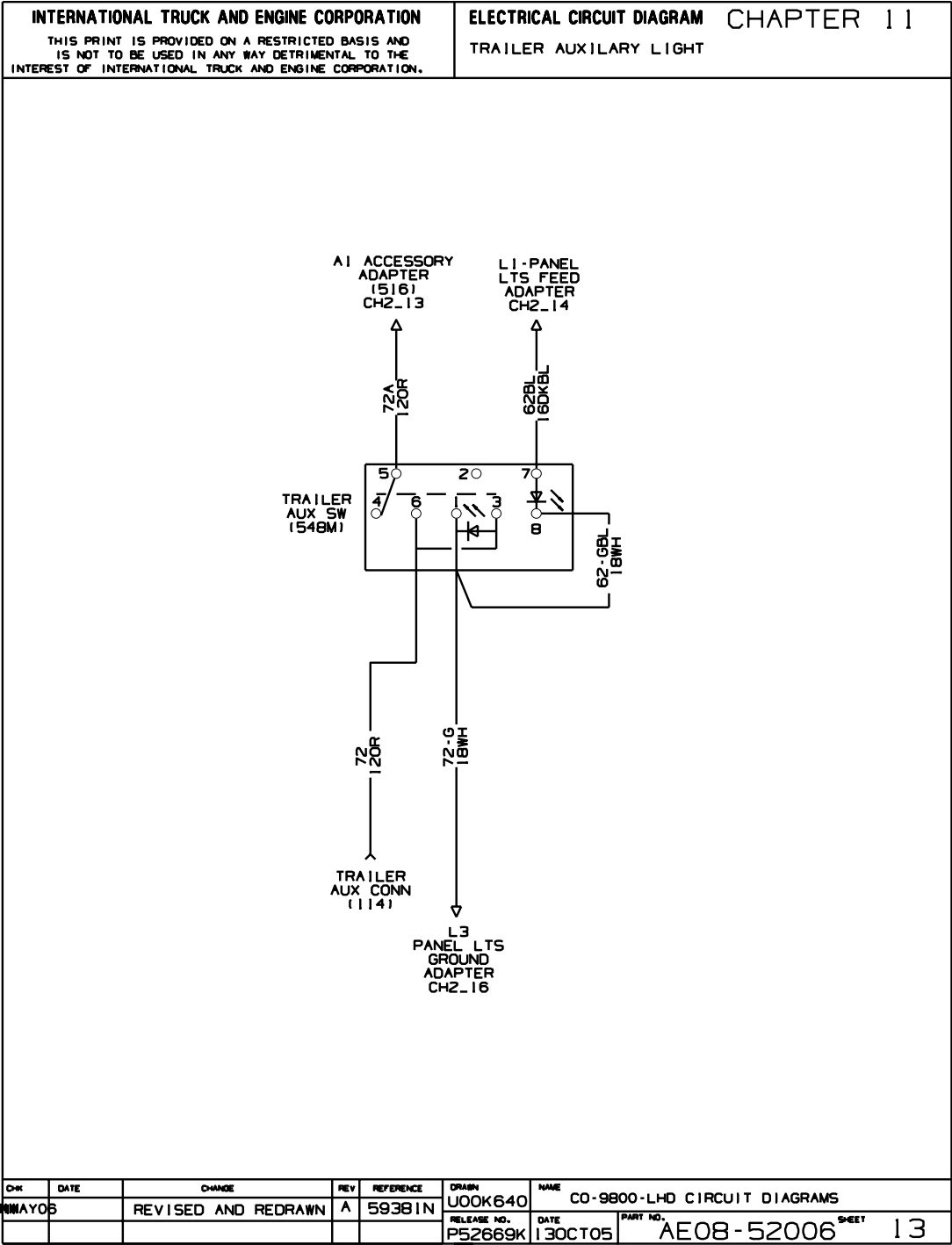


Figure 114 Trailer Auxiliary Light

11.14. DRL LAMP, P. 14

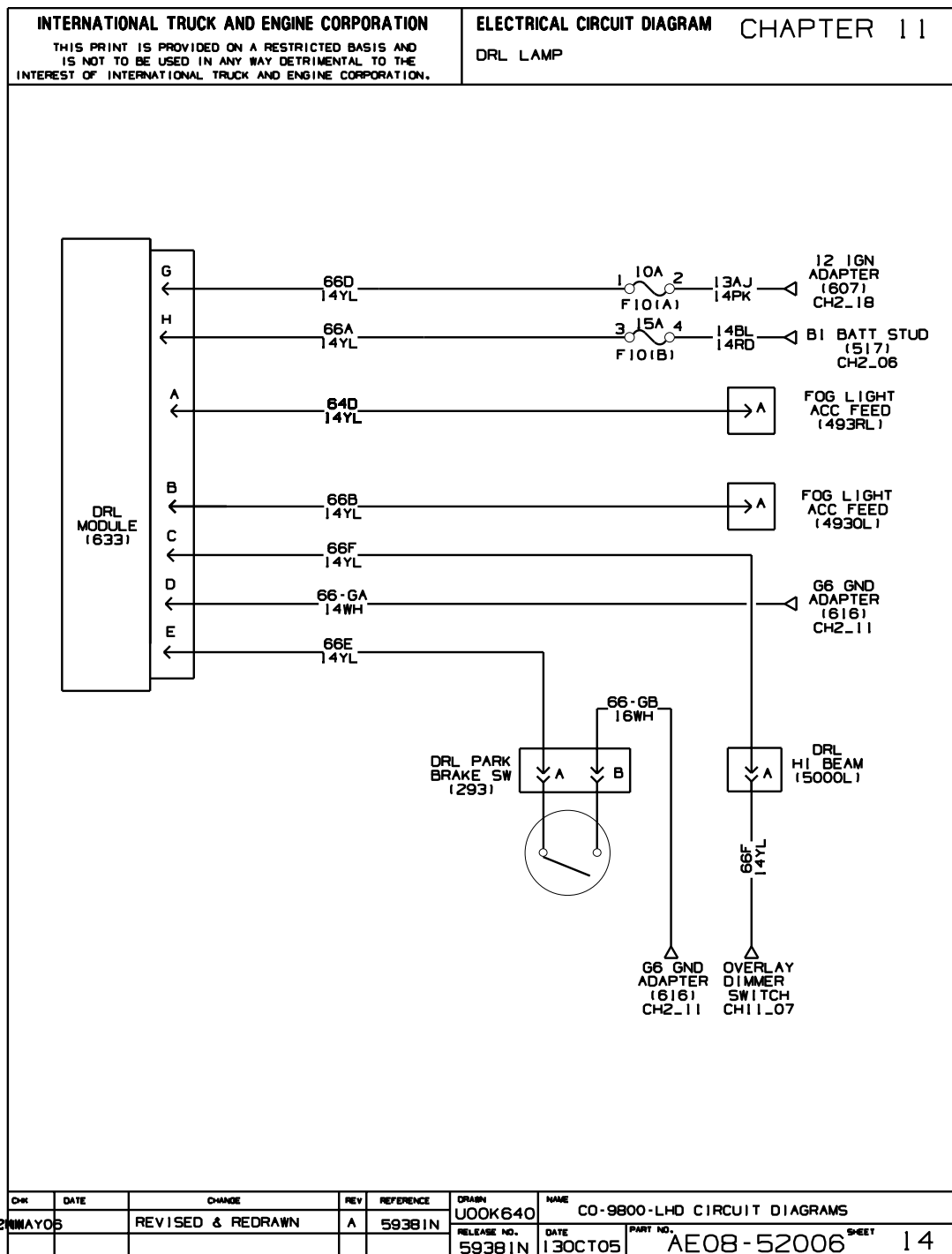


Figure 115 DRL Lamp

12.1. AIR CONDITIONER — CAB, P. 1



[illegible]

Figure 118 Sleeper Bunk Blower

12.4. HEATER — SLEEPER BUNK, P. 4

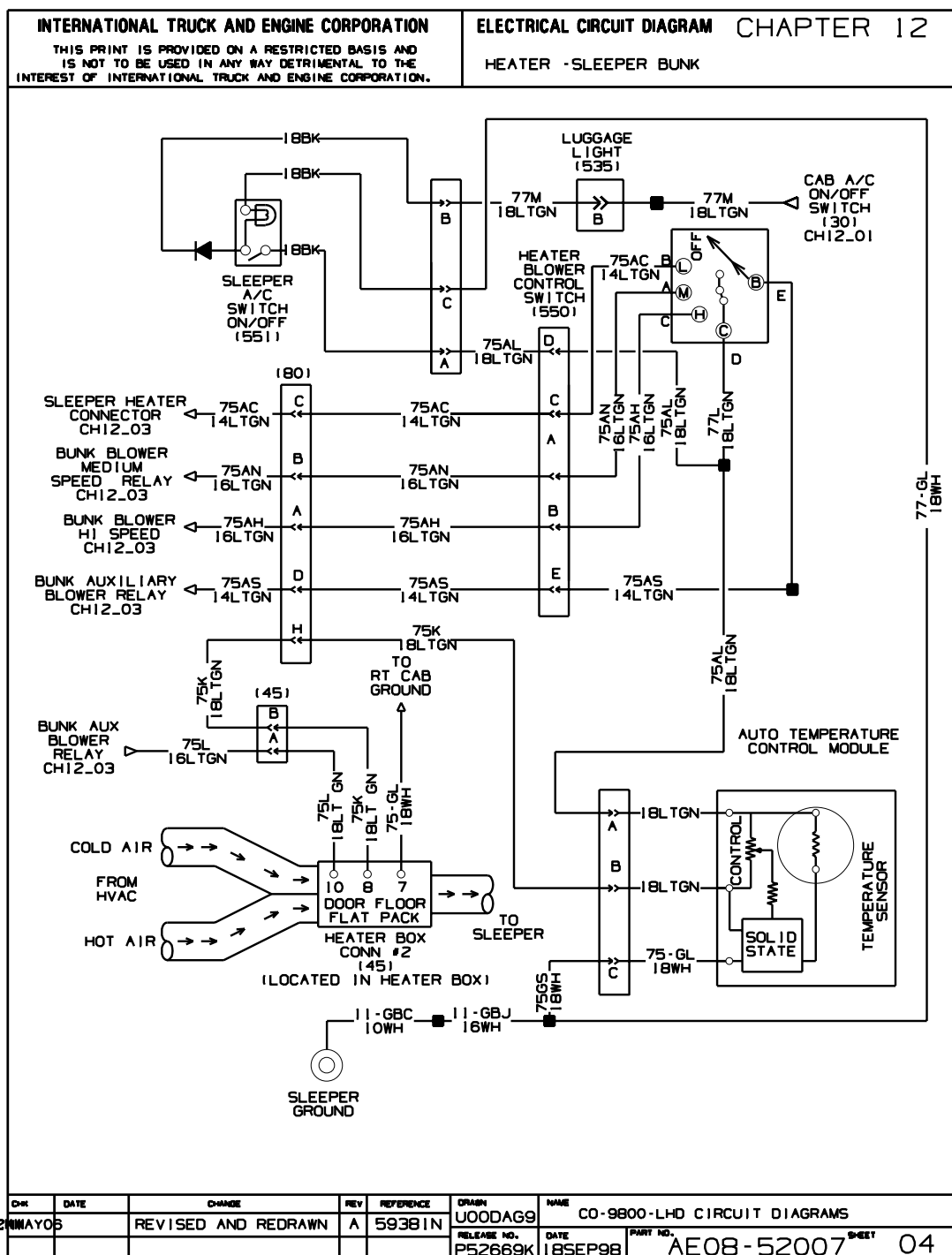


Figure 119 Heater — Sleeper Bunk